

CERGE  
Center for Economic Research and Graduate Education  
Charles University Prague



## **Topics on Terrorism and Foreign Direct Investment**

**Dragana Stanišić**

Dissertation

Prague October, 2013.



## **Dissertation Committee**

Randall K. Filer, City University of New York, chair

Štěpán Jurajda, CERGE-EI, local chair

Jitka Malečková, Charles University

Teodora Paligorova, Central Bank of Canada

Evangelia Vourvachaki, CERGE-EI

## **Referees**

Oleh Havrylyshyn, University of Toronto

Jiří Podpiera, International Monetary Fund



---

To my family and my nephew Marko



---

# Contents

<b>Acknowledgments</b>	<b>vii</b>
<b>Abstract</b>	<b>1</b>
<b>Introduction</b>	<b>5</b>
<b>1 The Effect of Terrorist Incidents on Capital Flows</b>	<b>1</b>
1.1 Introduction and Literature Review . . . . .	2
1.2 Research Design: Methodology, Variables, and Data . . . . .	4
1.2.1 Methodology . . . . .	4
1.2.2 Variables . . . . .	5
1.2.3 Results . . . . .	10
1.3 Spill-over effects . . . . .	12
1.4 Conclusion . . . . .	13
1.A Data Sources . . . . .	14
1.B Selection of the countries in the sample . . . . .	14
<b>2 Terrorist Attacks and FDI Flows Between Countries</b>	<b>15</b>
2.1 Introduction . . . . .	16
2.2 Relationship to Literature . . . . .	17
2.3 Methodology . . . . .	19
2.4 Data . . . . .	21
2.4.1 The Sample . . . . .	21
2.4.2 The Dependent Variable . . . . .	23
2.4.3 Terrorism Variables . . . . .	23
2.4.4 Exclusion Restriction Variables . . . . .	24
2.4.5 Control Variables . . . . .	25
2.5 Results . . . . .	26
2.5.1 Base Model . . . . .	26

2.5.2	Robustness Checks . . . . .	29
2.6	Conclusion . . . . .	35
2.A	Description . . . . .	37
2.B	Graphs . . . . .	38
<b>3</b>	<b>Public Opinion and Terrorist Acts</b>	<b>41</b>
3.1	Introduction . . . . .	42
3.2	Data . . . . .	43
3.3	Public opinion . . . . .	46
3.4	Statistics . . . . .	49
3.5	Robustness checks . . . . .	53
3.6	Conclusion . . . . .	53
3.A	Data Sources . . . . .	56
3.B	Graphs . . . . .	57
	<b>Bibliography</b>	<b>61</b>
3.3	Tables . . . . .	66



---

## Acknowledgments

To everybody who supported me.

I would like to express my gratitude to my supervisor, Randall K. Filer, for his guidance and unreserved support throughout my studies at CERGE-EI. I would also like to thank the local chair of my dissertation Štěpán Jurajda for his valuable help and comments and Jitka Malečková for introducing me to the topic of security and for opening many doors for me. I am very grateful to CERGE-EI, Charles University and Czech Academy of Sciences for institutional support. Last but not least, I would like to thank Ilir Maçi, Barbara Forbes, and my dear friends from CERGE-EI and back home for always believing in me.

Czech Republic, Prague  
October 29, 2013

Dragana



---

# Abstract

Research in the field of terrorism is relatively new and has attracted researchers from different disciplines for only a short time. Economic literature studies both the causes and consequences of terrorism, and this thesis contributes to the literature addressing both of these aspects. The first two chapters focus on consequences of terrorist attacks on investments, while the third chapter addresses causes of terrorist attacks across national borders.

In the first chapter, co-authored with Randall K. Filer, we use an unbalanced panel of over 160 countries over a 25 year period to show that terrorism has a significant negative effect on foreign direct investment (FDI). We find evidence that FDI flows are more sensitive to terrorism than either portfolio investments or external debt flows. We also show that terrorism has a negative spill-over effect on the FDI flows of neighboring countries and find evidence that cultural rather than geographical proximity matters most. The results of this chapter open new questions for further research. For example, future empirical studies may discover reasons for the higher sensitivity of FDI to terrorism than other flows of investments. Or, future studies can show more empirical evidence of factors that influence negative spill-over effects of terrorism on neighboring economies.

The results from the first chapter served as motivation for the second chapter, where I estimate the negative effect of terrorism on FDI flow between countries. I employ a sample of 23 countries that send FDI and 52 countries which receive it from 1995 to 2010, and use sample selection correction to address the problem of missing observations. I estimate that an increase of terrorist attacks by one standard deviation is associated

with a 12 percent decrease of FDI flow from sender to receiver. I also find that there is a negative spill-over effect of terrorism among investors. Finally, I show that, in the last 16 years, perceived political stability has been the most important factor in attracting FDI. The results of this study suggest that in addition to general security conditions equal to all investors in the host market, there is additional terrorist attack risk for investment for each individual investor. With available data on terrorist attacks and FDI flow between countries, future studies can examine in more detail how this risk can be predicted, and which factors influence it. While the two first chapters address the consequences of terrorist attacks, the last chapter studies its causes.

The third chapter, co-authored with Jitka Malečková, examines support for terrorism in public opinion and its relationship with terrorist attacks. We link the 2007 PEW survey data on opinions regarding the justification of suicide terror attacks on nine regional powers which are often regarded unfavorably by the populations of 16 countries of the Middle East, Africa, and Asia to the NCTC data on international terrorist attacks. We find a robust positive relationship between the share of the population in a country that both justifies suicide bombings and has an unfavorable opinion of another country, and terrorism originating from the former country. The results of this study suggest that policy designers can look at public support for terrorism as a proxy for its occurrence. Future studies can examine the demographic characteristics of those who support terrorism, or study the factors that may change public opinion over time. Finally, future research may study mechanisms by which public support is translated into action or recruitment for terrorist groups.

Výzkum v oblasti terorismu je relativně novou disciplínou a po krátkou dobu tato disciplína lákala badatele z různých oborů. Ekonomická literatura studuje příčiny i následky terorismu; cílem této doktorské práce je přispět k literatuře zabývající se oběma těmito okruhy otázek.

První dvě kapitoly se zaměřují na důsledky teroristických útoků pro investování, zatímco třetí kapitola zkoumá příčiny teroristických útoků mezi státy.

V první kapitole, jejímž spoluautorem je Randall K. Filer, využíváme nevyvážený panel více než 160 zemí v průběhu 25 let jako ilustraci toho, že terorismus má závažný nepříznivý vliv na přímé investice plynoucí ze zahraničí (FDI). Našli jsme důkazy o tom, že toky přímých zahraničních investic (FDI) jsou na terorismus citlivější, než portfoliové investování nebo externí dluhové financování. Ukazujeme také, že terorismus má efekt negativního přelévání na toky přímých zahraničních investic (FDI) v sousedních zemích; hledáme důkazy o tom, že největší vliv má kulturní spíše než geografická blízkost. Závěry této kapitoly otevírají nové otázky pro budoucí výzkum. Empirické studie v budoucnu mohou například zkoumat důvody, proč je oblast přímých zahraničních investic (FDI) citlivější na terorismus více, než jiné druhy investic. Budoucí empirické studie by také mohly předložit více empirických důkazů ohledně faktorů, které mají vliv na efekt negativního přelévání terorismu do sousedních ekonomik.

Výsledky první kapitoly se staly hlavním impulsem a východiskem pro druhou kapitolu, v níž odhaduji negativní dopady terorismu na tok přímých zahraničních investic (FDI) mezi jednotlivými zeměmi. Použili jsme k tomu vzorek 23 zemí poskytujících přímé zahraniční investice (FDI) a 52 zemí přijímajících přímé zahraniční investice (FDI) v období 1995-2010; zároveň jsme použili korekci výběru vzorkům, kde scházela pozorování. Odhadujeme, že nárůst teroristických útoků o jednu standardní odchylku se pojí s 12% poklesem přílivu přímých zahraničních investic (FDI) od poskytovatele směrem k příjemci. Zjistili jsme také, že existuje negativní efekt přelévání terorismu mezi jednotlivými investory. V závěru ukazuji, že nejdůležitějším faktorem pro přilákání přímých zahraničních investic (FDI) v uplynulých 16 letech byla pozorovaná politická stabilita. Výsledky této studie vedou k závěru, že kromě obecných bezpečnostních otázek stejných pro všechny investory na hostitelském trhu, existuje dodatečné riziko investování vztahující se na každého investora samostatně, a to z teroristických útoků. Pomocí dostupných údajů o teroristických útocích a toku přímých zahraničních investic (FDI) mezi jednotlivými zeměmi, se výzkum v budoucnu může podrobněji zabývat otázkou, jak lze toto riziko předpovědět a které faktory na něj mají vliv.

Zatímco se první dvě kapitoly zabývají důsledky teroristických útoků, v poslední kapitole jsme se zaměřili na jejich příčiny. Ve třetí kapitole, jejíž spoluautorkou je Jitka Malečková, zkoumáme podporu terorismu ze strany veřejného mínění a její souvislost s teroristickým útokem. Propojujeme údaje z průzkumu provedeného institutem PEW v roce 2007, týkající se ospravedlnění sebevražedných útoků a názorů ze 16 zemí Středního Východu, Afriky a Asie na devět regionálních mocností, s údaji NCTC ohledně mezinárodních teroristických útoků na osoby v zemích, které jsou nepříznivě vnímány. Našli jsme silnou pozitivní vazbu mezi podílem populace v zemi, která zároveň ospravedlňuje sebevražedné bombové útoky a má negativní názor na jinou zemi, a terorismem vznikajícím v dříve uvedené zemi. Výsledky této studie naznačují, že tvůrci politických strategií se mohou podívat na veřejnou podporu terorismu jako na zástupný indikátor jeho výskytu. Budoucí studie se mohou zaměřit na zkoumání demografických charakteristik těch, kdo podporují terorismus, případně analyzovat ty faktory, které v čase mění postoj veřejného mínění. Budoucí výzkum se konečně též může zaměřit na prozkoumání mechanismů, pomocí nichž se veřejná podpora může proměnit v působení nebo nábor pro teroristické skupiny.

---

# Introduction

This thesis consists of three chapters that investigate effects of terrorist incidents on capital flow and the influence of public opinion on the occurrence of terrorist incidents across countries. The main focus of the thesis is the relationship between foreign direct investments (FDI) and the occurrence of terrorism. Therefore, the first chapter examines the effect of terrorist incidents on capital flows: external debt, portfolio investments and foreign direct investment (FDI). The results of this study served as building blocks for the second chapter, which examines the effect of terrorist attacks on FDI flow between countries. While the first two chapters study consequences of terrorist attacks, the third chapter analyses factors influencing the occurrence of terrorist incidents between countries.

The motivation for these works is rooted in the global increase in FDI and the impact of terrorism on economies. The total volume of FDI has consistently increased over the past two decades (UNCTAD, 2011), and as the presence of FDI has a positive influence on host economies, the attention of researchers has turned to examining conditions that will make countries more attractive for investors (eg. Alfaro, Kalemli-Ozcan, and Sayek, 2009; Pessoa, 2008; Driffield and Love, 2007).<sup>1</sup> Based on the experience of China, Chunlai (1997) concludes that liberalizing FDI and trade policies increases FDI inflow. Wei (2000) shows that corruption and tax policies significantly affect investment. Alfaro, Kalemli-Ozcan, and Volosovych (2005) provide empirical evidence of the impact of institutional quality on FDI inflow. Bellak, Leibrecht, and Riedl (2008) find that labor costs and

---

<sup>1</sup>Source: United Nations Conference for Trade and Development (UNCTAD) [www.unctad.org](http://www.unctad.org)

flexibility of labor policies are important for investors. Other important factors include tax systems design, and the extent to which government policies promote private sector development.

Schneider and Frey (1985) were among the first authors to recognize the importance of both economic and political factors in FDI analysis. The authors empirically verify their hypothesis that economic and political factors act simultaneously on the market. They perform ex-post prediction of FDI investment models and find that models which incorporate both economic and political variables show the greatest prediction power. Wheeler and Mody (1992) study factors that enhance the ability of a country to attract FDI. They find that, when US firms invest in industrial countries, domestic market size and industrial support (integrated production and marketing) are the most important factors. In developing economies, quality of infrastructure, tax incentives and prospects of good international relations were considered, indicating that policies and political factors are important determinants for investment. In current literature, political risk is broadly defined and the risk of terrorism is often included in the broad definition rather than being singled out as an influencing factor on its own. This thesis contributes to the exiting literature by singling out the effects of terrorism on investments.

In the first chapter, co-authored with Randall K. Filer, we study how capital flows react to occurrences of terrorism. We examine whether different types of capital flow react differently to terrorism. Our hypothesis is that terrorist incidents introduce an additional risk associated with investments. In addition, we analyze the spill-over effect of terrorism across countries. We apply country and year fixed effects estimation for more than 160 countries over 25 years. Using a new and comprehensive terrorism database (LaFree, 2010), we find that increased terrorism activity in a country is associated with a substantial decrease in FDI (measured as a percentage of GDP). In addition, we find that external debt and portfolio investments are less sensitive to terrorist attacks than FDI. The findings hold when we control for the intensity of attacks and other factors commonly used in related studies (level of development, financial openness, regions, natural disasters, regional characteristics). In effect, if international terrorism is driven by grievances towards foreign countries, external debt and portfolio investment do not have the same “foreign face value” as FDI in the host economies. Expanding the analysis of the relationship between terrorism and capital flows, we examine spill-over effects on neighboring countries. We measure this effect between countries using different shared characteristics (geographical, cultural, and combinations of these). We find robust evidence that a



shared religion between countries reduces FDI through negative spill-over effect of terrorist attacks occurring in one of the countries. The contribution of this chapter to current literature is in its analysis of significant spill-over effects that terrorist incidents have on FDI. The questions arising from these results are worth exploring in future studies. For example, which terrorist targets are related to the strongest spill-over effects? If there are spill-over effects between countries, do these also apply to industries? Another contribution of this chapter is in its finding that external debt and portfolio investments are more resilient to terrorist incidents than FDI. Future research could test and verify these results with more detailed data, which will provide empirical explanations.

Based on the results of the first chapter, the second chapter empirically investigates how terrorist attacks affect FDI. Using the sample of 23 investor and 52 host countries over 1995 to 2010, I study how terrorist incidents perpetrated by host countries against targets of investor countries affect FDI inflow. The sample should have 23 investors paired with 52 hosts, but there were many missing pairs. To solve for the problem of missing observations, I apply a sample selection correction estimation model with investment fixed setup costs as the exclusion restriction variable (as in Razin, Rubinstein, and Sadka, 2004). To proxy for fixed setup costs, I use a time lagged FDI participation dummy and the indicator of an investor's capital openness. The study finds that terrorist attacks perpetrated by citizens of countries that receive FDI against countries that send FDI have a significantly negative effect on the probability and size of investment. If attacks double, the share of FDI in a receiver's GDP decreases by 2 percent of the sample average. This result is robust to different specifications and modifications of the sample. In this study I also examine how investors distribute their "investment pie" between hosts, and I find that terrorism plays a significant role here as well. In addition, I show that investors who have suffered the most attacks have a negative spillover effect on other investors. The governance indicator, such as *Political Stability and Absence of Violence/Terrorism* has the highest impact among institutional factors. The results of this paper suggest that there is an essential difference between general market conditions that affect all investors in host countries, or countries that receive FDI, in a similar fashion, and country-pair security conditions (measured through numbers of terrorist incidents) that vary across different investors in the host country. The contribution of this study to current literature is in quantifying the magnitude of the impact of terrorist incidents between countries. Future studies can build on this result and examine if the strength of the impact depends on industry types. The second contribution of the chapter

is in the result that general market risks in the host country differ from country-pair risks. This study approximates country-pair security conditions through numbers of terrorist incidents, but in future studies it would be worthwhile to examine what other factors are important in the variation of specific security conditions between countries, for example historical relations, foreign aid, military alliances, etc.

While the first two papers look at the economic consequences of terrorist incidents, the final chapter examines factors significant for the occurrence of terrorist attacks. In the third chapter, co-authored with Jitka Malečková, we examine citizen's opinions about regional powers and justification of suicide terrorism in relation to terrorist attacks. This study was motivated by a lack of consensus in the literature about the causes of terrorism, and general lack of a theoretical foundation to explain it. Abadie (2006) argues that political conflict and terrorism are very similar in their nature and that causes of political conflict can be interpreted as causes of terrorism. By this induction, if poverty is a cause of political conflict, it also should contribute to occurrences of terrorist acts. In contrast to this claim, some studies find no empirical evidence of a relationship between occurrence of terrorism and levels of wealth (Krueger and Malečková, 2003; Berrebi, 2007). Micro-level analysis finding that terrorism and wealth are not linked was soon supported by findings from macro-level data. Abadie (2006) and Krueger and Laitin (2008) find no correlation between the level of GDP and terrorist attacks in a country, once they control for political rights and civil liberties respectively. However, recently Pinar (2009) has estimated the long term effect of economic conditions on terrorism and found that an increase in a country's wealth is negatively correlated with occurrence of terrorism. Empirical research of the relationship between public opinion and the occurrence of terrorism is a recent phenomenon. The first paper by Krueger and Malečková (2009) shows that there is a positive correlation between incidents of international terrorism when there is a high disapproval rate of the leader of the target country. The third chapter of this thesis finds that occurrence of terrorist acts increases when general public opinion is unfavorable towards the target country and if justification of terrorism in the source country exists. The importance of public support of terrorism, whether it consists of providing material and financial help, shelter, legitimization, or creates a potential pool for recruiting future members of extremist organizations, has been increasingly recognized (Shafiq and Sinno, 2010; Tessler and Robbins, 2007; Tessler, 2007; Pape, 2005; Atran, 2003). The contribution of this study to current literature is in the confirmation that public opinion is a relevant factor in the occurrence of terrorism. In addition, we find that there must be

a critical share of a given population that holds negative opinions of target leaders and justifies terrorism. There is a range of relevant questions for future research: In what ways do negative opinions translate into action? Does the “critical share of population” decrease the costs of planning and committing terrorist incidents or is the significant factor an increase in the pool of potential recruits? Future research can also offer more empirical evidence of the factors that influence changes of public opinion over time.



## Chapter 1

---

# The Effect of Terrorist Incidents on Capital Flows

The current literature shows a significant negative impact of terrorism on countries' economies. We explore this relationship in more detail. Using an unbalanced panel of more than 160 countries over 25 years and the Global Terrorism Database (GTD), we show that a decrease in FDI is a consequence of terrorism. We also find evidence that FDI flows are more sensitive to terrorism than either portfolio investments or external debt flows. Finally, we test the hypothesis that terrorism has negative spill-over effects on FDI flows into neighboring countries and find evidence that cultural closeness has a stronger effect than geographical closeness.<sup>1</sup>

JEL: F200, D74, H56

Key words: capital flow, terrorism, FDI, spill-over effect

---

<sup>1</sup>An earlier version of this paper was published in Filer, R. and Stanišić, D. (2012) "The Effect of Terrorist Incidents on Capital Flows", CESifo Working Papers Series, 2012, No. 3998. We thank Štěpán Jurajda and seminar participants at CERGE-EI for helpful comments. All errors remaining in this text are the responsibility of the authors.

## 1.1 Introduction and Literature Review

There are three major mechanisms through which foreign investors can enter domestic markets: Foreign Direct Investment (FDI), Equity Portfolio Investment and Lending (Debt). Capital inflows depend on whether investors anticipate sufficient returns, given the projected risks. Risk is a function of many factors, including economic policies, political stability and the legal environment of the host country.<sup>2</sup> Exposure to terrorism represents an additional source of risk that may significantly influence investment decisions. Surveys by the Global Business Policy Council (Abadie and Gardeazabal, 2008) report that decision-makers do take terrorism risks into account. In this paper we examine how different types of capital inflow react to terrorist incidents. We postulate that terrorist incidents introduce disruptions to economies, directly affecting the risks associated with investments. We examine whether different types of capital flow react differently to terrorism. In addition, we analyze the spillover effect of terrorism across countries.

Previous literature has focused on assessing the impact of terrorism on FDI. Abadie and Gardeazabal (2008) develop an endogenous growth model showing that the risk of terrorism significantly lowers expected returns to investments. As a consequence, investors tend to avoid countries where terrorist risk is high, resulting in less than optimal levels of international investments. Abadie and Gardeazabal (2008) analyze how FDI changed with terrorism risk in 2003/2004 for a sample of 183 countries. Terrorism risk is found to account for a small fraction of the overall risk of investment, but to heavily influence FDI. In a case study of Greece and Spain, Enders and Sandler (1996) estimate that these countries suffered a 13.5% and 11.9% decrease in FDI respectively as a consequence of terrorist incidents. Eckstein and Tsiddon (2004) look at the effect of terrorism on the Israeli economy and find that even though the death rate from terrorism is similar to the death rate from car accidents in Israel, terrorism affects the economy in a far more severe way. Charles and Darne (2006) focus on the September 11th, 2001 terrorist attack on the U.S. and its effect on stock market prices. They suggest that modeling of financial risks can be improved by including terrorist events. Drakos (2009) shows that daily stock market returns are significantly affected by terrorist events and that the negative effect of terrorist attacks on stock markets is exacerbated by psychosocial effects.

In previous work studying the relationship between terrorism and capital flows, the most

---

<sup>2</sup>Host country refers to a country into which investment is made.

commonly used terrorism measure is the number of terrorist incidents in a country per year. One critique of this measure is that it ignores information regarding the severity of incidents (number of killed or injured) (Enders and Sandler, 1996). Thus, counting all terrorist incidents as equal would imply that attacks on facilities in which no one was injured or killed would convey the same signal as terrorist incidents with multiple casualties. In addition to the number of attacks, the “terrorism risk” index has been used as a measure of the impact of terrorism in previous work (Enders and Sachsida, 2006; Abadie and Gardeazabal, 2008). It is argued that terrorism risk is a better measure because the number of attacks is a noisy measure, with too much random variation year-to-year, to capture the latent level of terrorist risk without significant measurement error and will, therefore, lead to biased results (Abadie and Gardeazabal, pg.11). Reported terrorism risk as used empirically, however, shows no variation over 15 years (Abadie and Gardeazabal, 2008). Since it seems highly unlikely there has really been no change in the underlying risk in any country during this period, it seems that the terrorism risk index has not been updated in a Bayesian manner to include the additional information provided by new terrorist incidents.

Much of the prior literature has estimated the effect of terrorism on capital flows by examining only international terrorism (terrorist incidents where the perpetrator and target are of different nationalities). Enders and Sandler (2006) point out that this can lead to misleading results for several reasons. Consider a country that experienced one international and twenty domestic terrorist incidents in a given year. In that case, considering only international incidents would attribute the entire effect to one incident instead of to the twenty-one that actually occurred. Furthermore, the country might experience only domestic terrorism and, if analysis only accounted for international incidents, any effect on capital inflows would be assigned to non-terrorism factors or the unexplained residual, even if they were actually affected by domestic terrorism. International terrorism cannot fully stand as a proxy for domestic terrorism since, as will be seen below, the correlation between these two types of events, while significant, is substantially less than 0.5.<sup>3</sup>

Going beyond the direct effect of terrorism, very few studies have examined spill-over effects of terrorism across national borders. De Sousa, Mirza and Verdier (2010) use a

---

<sup>3</sup>To estimate the correlation between domestic and international terrorist incidents we use Global Terrorism Database (GTD). We identify events as domestic terrorism incidents in which both perpetrators and victims were of the same nationality; otherwise they are identified as international. There were a number of incidents where one (or both) nationalities were unknown; these incidents are not included in the correlation estimate.

trade model to incorporate spill-over effects of transnational terrorism and security on trade. They test this relationship using data on US bilateral net imports and recorded terrorist incidents against U.S targets. In addition to a direct negative impact on trade, terrorism produced a negative spill-over effect on the bilateral trade in countries that share a border with the countries/regions where the terrorist groups are based.

## 1.2 Research Design: Methodology, Variables, and Data

### 1.2.1 Methodology

We create an unbalanced panel of more than 160 countries over 25 years and use a fixed effects regression framework. Fixed effects are desirable for two main reasons. First, country specific characteristics may be correlated with other variables and, second, the sample of countries is not random.<sup>4</sup> To study the relationship between capital flows and terrorist incidents we use two-way fixed effects. We acknowledge that the relationship between capital flows and terrorism could, in theory, be bi-directional. An inflow of foreign capital can provide additional terrorist targets as well as possibly greater resentment among the populace that may serve as increased motivation for attacks. On the other hand, capital inflows might increase employment and incomes, reducing the level of economic frustration among a population, hence decreasing the motivation for terrorist attacks. Previous literature, however, rejects reverse causality as a problem. Li and Schaub (2004) study the hypothesis that “globalization” through international trade, FDI and portfolio investment decreases the costs of international terrorism and increases the number of terrorist attacks. They find no evidence to confirm such a hypothesis. In addition, even if terrorist attacks happen more often due to the presence of foreign capital in a country, the result will be a positive bias to the coefficient on a variable (Abadie and Gardeazabal, 2008). Based on these prior findings, we do not address reverse causality in the analysis that follows.<sup>5</sup>

#### *Baseline Specification Model*

To estimate the effect of terrorism on capital flows, controlling for the country determi-

---

<sup>4</sup>A Hausman test implies the use of fixed versus random effects. Details are in the results section.

<sup>5</sup>We did, however, conduct one crude test for endogeneity. Leads of our attack variable are not related to current financial flows, with coefficients of varying signs that are never statistically significant.



nants, country and year fixed effects, we use the following estimating equation:

$$\begin{aligned} Capital\ Flow_{i,t} &= \beta_1 Incidents_{i,t} + \beta_2 Incidents\ 5\ y.a._{i,t} \\ &+ \mathbf{X}_{i,t}\gamma_z + u_{i,t} \end{aligned} \quad (1.1)$$

where *Capital Flow* refers to three different dependent variables: *FDI*, *New External Debt* and *Portfolio Investment* flows into country  $i$  in time  $t$ ; *Incidents* in country  $i$  in time  $t$  is a terrorism variable accounting for current terrorist activity relative to a country's population in millions. *Incidents 5 year average* is the average number of attacks in the previous five years ( $t = -6$  to  $-1$ ) relative to the five year average population in millions.<sup>6</sup> The vector  $X$  contains country specific variables including GDP per capita, population, Financial Openness Index, and natural disasters. The coefficients of interest in equation (1) are  $\beta_1$  and  $\beta_2$ . A significant negative coefficient would imply that the inflow of capital (FDI, External Debt or Portfolio Investment) in time  $t$  is reduced by terrorist incidents occurring in the same year. A significant negative coefficient on  $\beta_2$  would imply that investors needed time to adjust plans to reflect any deterrent effect of terrorist activity.

#### *Spill-over Specification (modification of the baseline model)*

In order to capture the spill-over effect of terrorist incidents on capital flows, we modify equation (1) by adding variables that capture the effects of incidents in related countries.

$$\begin{aligned} Capital\ Flow_{i,t} &= \beta_1 Incidents_{i,t} + \beta_2 Incidents\ 5\ y.a._{i,t} \\ &+ \mathbf{Z}_{i,t}\sigma_k + \mathbf{X}_{i,t}\gamma'_z + \epsilon_{i,t} \end{aligned} \quad (1.2)$$

where  $Z$  is a vector of spill-over (neighborhood) variables.

## 1.2.2 Variables

### Terrorism Variables

Ideally a terrorist risk index should vary over time to reflect responses to events of terrorism. In addition to apparently not being updated, however, the Global Terrorism Index

---

<sup>6</sup>We experimented with different lengths of time including three and four years with no difference in results.

(GTI) used by Abadie and Gardeazaaal (2008) is no longer available.<sup>7</sup> To ensure that the perceived risk of terrorism varies over time and to account for the intensity of terrorist incidents, we use Global Terrorism Dataset (GTD) (provided by The National Consortium for the Study of Terrorism and Responses to Terrorism (START)) which includes additional information on the severity of each incident.<sup>8</sup> As discussed above, we created two variables, one for the average number of terrorist attacks in the previous five years and an additional variable for the number of terrorist attacks in present time. The first variable captures historical events that could affect plans based on prior information, while the second captures the new information provided by current events that will lead to investors updating their perception of risk at time  $t$ .<sup>9</sup>

The GTD contains detailed information on more than 82,000 terrorist attacks from 1970 to 2004. A terrorist incident is defined as “the threatened or actual use of illegal force and violence to attain a political, economic, religious or social goal through fear coercion or intimidation.” (LaFree, 2010,p.25). The GTD dataset does not include criminal events without an ideological or political goal or events of actual, officially recognized combat (LaFree, 2010). The GTD collects event data on terrorism from sources including Reuters, the Foreign Broadcast Information Service (FBIS), the Pinkerton Global Intelligence Service (PGIS) and its offices around the world, the US State Department reports, other US and foreign government agencies, and US and foreign newspapers including the *New York Times*, *Financial Times*, *Christian Science Monitor*, *Washington Post*, *Washington Times*, and *Wall Street Journal* (LaFree, 2010). We normalize all terrorism variables by population in millions in order to control for country size effects (i.e. twenty attacks in a country with 300 million inhabitants is different than in a country with 10 million residents).<sup>10</sup> In order to address the intensity of attacks, we include measures of the number of fatalities occurring in terrorist incidents in some specifications. In our sample of over 160 countries over 21 years, there were a total of 55,597 terrorist incidents, out of which only (2,989) 5 percent were incidents in which no one was injured or killed.<sup>11</sup>

---

<sup>7</sup>The agency that produced this index, World Market Research Center, was acquired by Global Insight and no longer produces the index.

<sup>8</sup><http://www.start.umd.edu/gtd/about/>

<sup>9</sup>As would implicitly be studied in prior work using the terrorism risk index.

<sup>10</sup>We do not distinguish between international and domestic terrorist attacks for two reasons: first, there is a significant share of terrorist attacks with unknown perpetrators and victims, and second, there are different definitions of international terrorism that change the number of attacks in each group.

<sup>11</sup>The total number of people injured or killed in incidents is 279,970, which yields approximately 5 fatalities per attack as an average.

## Dependent Variables - FDI flows, Portfolio Investment and External Debt Flows

The data on Foreign Direct Investments (FDI) is from the United Nations Conference for Trade and Development (UNCTAD), Division on Investment and Enterprise.<sup>12</sup> FDI is defined as “investment involving a long-term relationship, reflecting a lasting interest in, and control by (10 percent ownership), a resident entity in one economy (foreign direct investor or parent enterprise) of an enterprise in a different economy (FDI enterprise or affiliate enterprise or foreign affiliate). Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates.”<sup>13</sup> *External Debt* flows are derived from the World Bank Development Indicators (WDI).<sup>14</sup> *External Debt* measures external debt stocks in the private sector: Long-term private sector external debt conveys information about the distribution of long-term debt for DRS (debtor reporting system) countries by type of debtor (private banks and private entities). Long-term external debt is defined as debt that has an original or extended maturity of more than one year and which is owed to nonresidents by residents of an economy and is repayable in foreign currency, goods, or services. Using the WDI data we define *External Debt Flow* as:

$$External\ Debt\ Flow_{i,t} = \frac{External\ Debt_{i,t} - External\ Debt_{i,t-1}}{GDP_{i,t}} \cdot 100 \quad (1.3)$$

Data used to derive *Portfolio Investment* are also from the World Bank Development Indicators. *Portfolio investment(equity)* includes net inflows from equity securities other than those recorded as direct investment and including shares, stocks, depository receipts (American or global), and direct purchases of shares in local stock markets by foreign

---

<sup>12</sup><http://unctad.org> (United Nations Conference for Trade and Development, 2012)

<sup>13</sup>The data series are FDI flows. *FDI inflows and outflows comprise capital provided (either directly or through other related enterprises) by a foreign direct investor to an FDI enterprise, or capital received by a foreign direct investor from a FDI enterprise. FDI includes the three following components: equity capital, reinvested earnings and intra-company loans. Data on FDI flows are presented on a net basis (capital transactions' credits less debits between direct investors and their foreign affiliates). Net decreases in assets or net increases in liabilities are recorded as credits, while net increases in assets or net decreases in liabilities are recorded as debits. Hence, FDI flows with a negative sign indicate that at least one of the three components of FDI is negative and not offset by positive levels of the remaining components. These are termed reverse investments or disinvestments.* [www.unctadstat.unctad.org](http://www.unctadstat.unctad.org)

<sup>14</sup>[www.worldbank.org](http://www.worldbank.org)

investors. Again using WDI data we define *Portfolio Investment Flow* as:

$$Portfolio\ Investment\ Flow_{i,t} = \frac{Portfolio\ Inv_{i,t} - Portfolio\ Inv_{i,t-1}}{GDP_{i,t}} \cdot 100 \quad (1.4)$$

### Spill-over Variables

In order to account for spill-over effects, we follow de Sousa et al.(2010) and use multiple different characteristics in order to define *spill-overs* for a given country (further referred to as a “major country”). These characteristics include sharing a common religion, language, border, colonial history, or combinations of these. Thus, the “neighbors” of a given major country are any countries that share its characteristics even in cases when they are not geographically close. For example, two countries having the same majority religion could be counted as “neighbors” in the religious sense even though they are not physically close to each other. To derive the spill-over variables, we start with a dataset in which the unit of observation is a pair of countries for a given year. We then identify neighbors by a dummy variable for a given *Characteristic* and multiply this by the number of terrorist incidents in the neighboring country. Next, we total the attacks for all of a particular major countries’ neighboring countries and divide this sum by the neighboring countries’ total population in millions.

$$Neighbor\ Effect_{i,t} = \sum \frac{Characteristic_k \cdot Number\ of\ Incidents_{z,t}}{Characteristic_k \cdot Population\ in\ Millions_{z,t}} \quad (1.5)$$

$i$  = major country (capital flow recipient);

$z$  = neighboring country (by characteristic  $k$ ); and

$t$  = year;

For each “major country” we define terrorist activity its “neighborhood” based on the following neighborhoods:

*Border* if the countries share a border with the major country;

*Official Language* if the countries share an official language;<sup>15</sup>

*Minority Language* if at least 9% of the populations of neighboring countries speak the same language as the major country;

---

<sup>15</sup>We accounted for any shared official language when a country had more than one.

*Colony '45* if the countries were a colony of a major country after 1945;<sup>16</sup>

*Common Colonizer* if the countries (neighbor and major) had a common colonizer;

*Main Religion* if a country's majority religion is the same as the main religion of the major country;<sup>17</sup>

*Second Religion* if a country's second largest religion is the same as a major country's main religion;

*Same Region and Majority Religion* if the countries are in the same region and have the same majority religion;

*Border and Majority Religion* if the countries share a border and have the same majority religion;

All neighboring variables have been standardized by the total population of the neighboring states so that intensity of terrorism is measured on the same scale as for the major country.

## Measure of Financial Openness

In order to capture country-specific conditions in financial markets including restrictions on FDI, we use the *Financial Openness Index* developed by Chin and Ito (2008). This index is derived using the IMF's *Annual Report on Exchange Agreements and Exchange Restrictions* (AREAER) which contains information on whether a country has multiple exchange rates, restrictions on current account transactions, restrictions on capital account transactions, and requirements for the surrender to the government of currency earned through exports (Chin and Ito, 2008). Using these measures, the authors created dummy variables where 1 is assigned to cases without restrictions on each of the above four factors.<sup>18</sup> The index is then calculated as the first standardized principal component of the four indicators, with a higher index referring to a more open economy. This index varies both across countries and over time. The advantages of the Chin-Ito index relative

---

<sup>16</sup>For further details on language classification please see Mayer and Zignago (2011).

<sup>17</sup>To construct the religion dummy we assign a value of 1 if a country pair has the same main religion. The information on main religion was taken from the CIA factbook and defined as: Muslim Sunni, Muslim Shia, Muslim, Orthodox, Catholic, Anglican, Hindu, Protestant, Buddhist, Lutheran, Jewish, Evangelical (www.cia.gov). Except in very few cases, countries in the study have over 50 percent of population belonging to one of the twelve religious groups.

<sup>18</sup>Averaged over the past five year window.

to other indexes of financial openness include its transparency of construction, country and time scope, and the fact that it accounts for the intensity of capital controls. In addition, compared to previous indices of financial openness that are based on interest rate parity or on arbitrage profit free conditions, the Chin-Ito index refers to actual regulatory restrictions.<sup>19</sup>

### 1.2.3 Results

In this section we start with baseline panel data estimates of the effect of terrorism on capital flows. Then we investigate whether there are spillover effects from terrorism in related countries. Table 1.1 presents an overview of all variables used in the baseline, spillover, and robustness check estimations. Table 1.2 shows correlations between variables. It should be noted that that FDI, External Debt and Portfolio Equity are all negatively correlated with terrorist attacks, but only the relationship between terrorism and FDI is statistically significant. To check for multicollinearity between independent variables, we use the Variance Inflation Factor (VIF).<sup>20</sup> For independent variables in the estimated specifications reported below, VIFs are less than 5, suggesting that these variables are uncorrelated.

#### The Effect of Terrorist Incidents on Capital Flows

We find evidence that some types of investment are more inhibited by terrorist attacks than others. Table 1.3 shows that the only significant relationship is between current attacks and conventional FDI.<sup>21</sup> External Debt and Portfolio Investment show less sensitivity to terrorist attacks. Columns (1), (3) and (5) report results of regressions of FDI, External Debt flows and Portfolio Investment flows on GDP per capita, population in millions, Financial Openness Index and *Incidents* and *Incidents over the previous 5 years*.<sup>22</sup> The coefficient on *Incidents* in column (1) is negative and significantly different from zero, this is not the case when the dependent variables are External Debt Flow (column 3) or Portfolio Investment Flow (column 5). In column (2) we include terrorism intensity

---

<sup>19</sup>For a more complete discussion of how this index compares to other indexes in the literature, see Chin and Ito (2008).

<sup>20</sup>The square root of VIF shows by how much the standard error is larger from the standard error in the case when independent variables are uncorrelated.

<sup>21</sup>Column (3) has only 120 observations due to a lack of data, so we perform the estimation of column (1) and (5) with same 120 observations and find similar results.

<sup>22</sup>In the estimation tables this variable is labeled *Incidents 5 y.a.*

variables *Fatalities* and *Fatalities over the previous 5 years*. We find no evidence to support the hypothesis that the intensity of terrorist incidents explains variation in any of the capital flows, once the current number of attacks have been accounted for.<sup>23</sup> In light of these results, henceforth we focus only on FDI.

Table 1.4 reports country and year fixed effects estimates. Column (1) shows regression results of FDI on terrorism variables only. On the basis of R-square we can say that terrorism alone explains 7 percent of the variance in FDI flows. In column (2) we include GDP per capita. The coefficient on *Incidents* remains negative and significantly different from zero, while the coefficient on *Incidents over the previous 5 years* is negative, much smaller, and not statistically significant. This suggests that these historical events are already included in investment stocks at time  $t$ , implying that current decisions are influenced only by new information derived from current terrorist incidents.<sup>24</sup> The estimations results are similar when we include measures of Financial Openness and population in column (3). The log of GDP per capita has a positive and significant coefficient that remains constant with different specifications of the baseline model. The sign and significance of the population variable is similar to GDP, indicating that both larger and wealthier markets will have larger positive flows of FDI. In Table 1.4, column (6) we control for the number of natural disasters, which has been used in the prior literature to explain variation in FDI flows (Abadie and Gardeazabal, 2008). We find similar results; natural disasters have a negative effect on FDI flows. The R-square coefficient implies that we are now explaining about 8 percent of FDI flow variance. Overall results from Table 1.4 show that current terrorist incidents have a negative effect on a country's ability to attract FDI. In particular, if a country moves from the 50th to the 75th percentile in the number of attacks, FDI flows as a share of GDP fall by 0.667 percentage points<sup>25</sup> or 25 percent<sup>26</sup> of average FDI flow.

---

<sup>23</sup> It is natural to assume that the number of fatalities associated with the attacks will have a significant effect on FDI. However, in the majority of attacks there are no fatalities: at the 50th percentile, the number of fatalities is still zero, at the 75th it is 4 and at the 95th, the number of fatalities is 275. Therefore, the lack of significance of the variable is a consequence of its lack of variation.

<sup>24</sup> We perform a Hausman test of the model specified in Table 1.4. and get a p-value 0.004. Based on this result we cannot reject the null hypothesis of the Hausman test and, therefore, we proceed using fixed rather than random effects.

<sup>25</sup> Calculating the impact on average  $(13.6784 - 1.91) * (0.0534)$

<sup>26</sup>  $(0.667 * 100) / 2.668$

### 1.3 Spill-over effects

Table 1.5 reports the results of fixed effects estimates including spill-over measures. The results show that FDI flows remain significantly negatively correlated with current terrorism across all specifications. Results in Table 1.5, column (1) show that sharing a border, or having the same official language or ethnic minority as a country that is affected by terrorism does not affect FDI flows into a given country. Results are similar in column (2) where more characteristics are introduced, including having a common colonial background, and being a colony after 1945. Results in Table 1.5, column (3) show that among countries with the same majority religion, geographic proximity does not seem to matter, but we cannot reject the hypothesis that negative spill-over effects exist across countries sharing a religion. In column (4), the result remains robust to inclusion of combinations of characteristics, such as: countries located in the same region which share a religion, and sharing a border and a mutual majority religion. Finally, in column (5) we include all characteristics and find that results in column (4) remain significant. If a major country has the same majority religion as a country with occurrences of terrorism, the major country will experience a drop in FDI flows. These results imply that a common religious affiliation, but not a shared physical location, creates a negative spill-over effect of terrorism on FDI flows. In addition to different specifications of the baseline model, we test for robustness by excluding the countries in the highest 10th percentile of total number of attacks distribution. The results remain significantly different from zero at the 5 percent confidence level (coefficients remaining the same). We also estimate the baseline specification model, but instead of using levels of FDI flows as the dependent variable, we use logs of FDI flows, and find similar results. The same holds if we measure terrorism by the log of the number of attacks relative to the population in millions. In addition to the results presented, we augmented the specification in Table 1.4, column (4) by adding interaction terms between terrorism variables and governance indicators from Freedom House.<sup>27</sup> We find no changes in our results, so we do not report the results.<sup>28</sup>

---

<sup>27</sup>Governance indicators include: control of corruption, government effectiveness, regulatory faculty, rule of law, voice and accountability, and political stability ([www.freedomhouse.org](http://www.freedomhouse.org)). These indicators are available from 1996 and comments regarding interaction terms refer to the period from 1996 to 2004.

<sup>28</sup>The estimations are available from the authors upon request.



## 1.4 Conclusion

This study analyzes the effect of terrorist attacks on three measures of capital flows: FDI, Equity Portfolio Investment, and Lending (Debt). We apply fixed country and year effects estimation to a sample of over 160 countries over 25 years. Using a new and comprehensive terrorism database (LaFree, 2010), we find no statistical evidence of the effect of terrorism on the flow of External Debt or Portfolio Investment. Increased terrorism activity in a country does, however, substantially decrease its inflow of FDI (measured as a percentage of GDP). This impact occurs rapidly. Lagged effects, while still negative, are far less in magnitude and not statistically significant.<sup>29</sup> These findings hold when we control for the intensity of attacks and other factors commonly used in related studies (level of development, financial openness, regions, natural disasters, regional characteristics). Lee and Powell (1999) argue that once the investment conditions in a host country change, FDI has less flexibility to adjust than external debt or portfolio investment because of its direct presence in a host country, and the fact that providers of FDI are usually directly engaged with the management of the investments. In effect, if international terrorism is driven by grievances towards foreign countries, external debt and portfolio investment do not have the same “foreign face value” as FDI in the economies receiving an investment. FDI is a more obvious and easily recognized target compared to external debt or portfolio investments. This distinction deserves more attention in future research. Follow up studies can provide insight on why external debt and portfolio investments are more resilient than FDI, using more detailed data on types of terrorist attacks and exact times of investment decisions.

Expanding the analysis of the relationship between terrorism and capital flows, we examine spill-over effects on neighboring countries. We measure spill-over effects between countries according to multiple shared characteristics (geographical, cultural and their combination). We find robust evidence of negative spill-over effect of terrorist attacks that occur in countries that share similar cultural characteristics.

---

<sup>29</sup>This conclusion regarding timing is reinforced if we consider the possible effects of measurement error. To the extent that events in a given year contain a stochastic component, the variable *Incidents* may suffer from measurement error, biasing coefficients towards zero (Abadie and Gardeazabal, 2008). Thus the fact that the coefficient on this variable is still substantially larger than that on *Incidents over the previous 5 years* that (due to averaging) should have lower measurement error gives further evidence that timing effects are rapid.

## 1.A Data Sources

- FDI flow dataset is from UNCTAD ([www.unctadstat.unctad.org](http://www.unctadstat.unctad.org));
- External Debt dataset is from World Development Indicators ([www.worldbank.org](http://www.worldbank.org));
- Portfolio equity investment dataset is from World Development Indicators ([www.worldbank.org](http://www.worldbank.org));
- Data on Population, GDP per capita is from World Development Indicators ([www.worldbank.org](http://www.worldbank.org));
- Financial Openness Index is from Chin and Ito (2009) (*web.pdx.edu/ito/Chinn – Ito\_website.htm*);
- Data on Natural Disasters is from International Disaster Database ([www.emdat.be](http://www.emdat.be));
- Terrorism data from Global Terrorism Database (GTD) accessed on November 2010 ([www.start.umd.edu/gtd](http://www.start.umd.edu/gtd));
- Neighborhood data: border, language, colonies is from Centre d’Etudes Prospectives et d’Informations Internationales (CEPII) ([www.cepii.fr](http://www.cepii.fr));
- Religion variables are from CIA The World Factbook ([www.cia.gov](http://www.cia.gov))

## 1.B Selection of the countries in the sample

We excluded countries that lacked the majority of the data (Andorra, American Samoa, Republic of Botswana, Channel Islands; Commonwealth Dominica, Faeroe Islands, Gibraltar, Greenland, Guam, Isle of Man, Principality of Lichtenstein, Macao, Republic of Marshall Islands, Union of Myanmar, Montenegro, Commonwealth of Northern Mariana Islands, Mayotte, New Caledonia, Nepal, Republic of Palau, Democratic People’s Republic of Korea, French Polynesia, Republic of San Marino, Turks and Caicos Islands, Democratic Republic of Timor-Leste, Tuvalu, Virgin Islands of the United States, Samoa)

## Chapter 2

---

# Terrorist Attacks and Foreign Direct Investment Flows Between Countries

The paper investigates how terrorism and institutional factors affect foreign direct investment (FDI). The paper distinguishes the effects of domestic, international and country-pair terrorism on investment flows between countries. It also examines the negative spillover effect of terrorism on investors. The paper employs a sample of 23 countries which send FDI from 1995 to 2010, and uses the sample selection correction method to address the problem of missing observations. The results of this paper suggest that there is an essential difference between general market conditions that affect all investors in host countries in a similar fashion, and particular country-pair security conditions that vary across different investors in the host country. <sup>1</sup>

JEL: F6, D74, H40

Keywords: Foreign direct investment, terrorist attacks, spill-over effects

---

<sup>1</sup>Thanks to Randall K. Filer, Štepan Jurajdá, Robin-Eliece Mercury, and seminar participants at CERGE-EI for helpful comments. All errors remaining in this text are the responsibility of the author.

## 2.1 Introduction

The Global Business Policy Council Survey shows that terrorism risk is one of the most significant factors deterring corporate foreign investment (Abadie and Gardeazabal, 2008). The authors argue that the distribution of capital does not justify the importance attributed to terrorism in policy debates. In addition, terrorist attacks jeopardize human lives and destroy properties, with both direct and indirect consequences for investment. For instance, direct costs can include the destruction of facilities (tangible capital) and safety risks to local employees which may deter workers from effectively performing their tasks. Moreover, investments can be lost due to uncertain political or economic conditions related to terrorist attacks, which is an indirect cost to the receiving economy.

In Filer and Stanišić (2012), we show that there are economic costs of terrorism measured through lost FDI in a country where terrorism occurs. Further, this paper was the first to examine the spillover effect of terrorism on FDI between hosts. Finding the negative spillover effect of terrorism on investments between FDI receiving countries motivated me to examine the relationship between investor and host countries in terms of FDI flows and terrorism.

In this study I examine how security conditions between individual country pairs affect their economic relationship and answer the following questions: How great is the economic loss, or decrease of investments, that follows terrorist incidents? Are perceived security conditions among the most important institutional conditions for investors? In addition, the individual country pair observations enable me to examine terrorism spillover effects among investors, which have not been analyzed in previous studies. It is important to explore this point since it can help us understand the decision-making processes of investors in high risk situations.

To answer these questions I employ country-pair data of the 23 most developed countries as FDI senders and 52 FDI receiving countries over 16 years from the United Nations Conference for Trade and Development (UNCTAD).<sup>2</sup> The dataset of bilateral investment flows between countries contains a large share of missing observations; therefore, I use the sample selection correction method to correct for this problem. For an example of

---

<sup>2</sup>Foreign direct investment (FDI) is defined as investment involving a long-term relationship, reflecting a lasting interest in and control by (equal to or greater than 10 percent of ownership) a resident entity in one economy (a foreign direct investor or parent enterprise) of an enterprise in a different economy (an FDI enterprise or affiliate enterprise or foreign affiliate). Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates. Retrieved on 06/01/2011 from [www.unctadstat.unctad.org](http://www.unctadstat.unctad.org)

such a method in a similar context, I refer to Razin, Rubenstian and Sadka (2004). To my knowledge this estimation technique has not been applied in previous literature on investment flows and terrorism.

## 2.2 Relationship to Literature

Foreign direct investments (FDI) have a significant effect on receiving countries (Drifffield and Love, 2007; Pessoa, 2008; Alfaro, Kalemli-Ozcan, and Sayek, 2009).

In order to attract more investment, countries improve their institutional stability and market potential. Not surprisingly, numerous papers study factors that attract FDI: quality of institutions, corruption, size of the economy, open trade policies, labor costs, and tax policies (Edwards, 1992; Chunlai, 1997; Wei, 2000; Sin and Leung, 2001; Janicki and Wunnava, 2004; Abadie and Gardeazabal, 2008; Bellak, Leibrecht, and Riedl, 2008; and Alfaro Kalemli-Ozcan, and Sayek, 2007). Different market risks have been also a focus of literature that examines factors for attracting FDI. For example, Egger and Winner (2003) find significant effects of contract risk (quality of country's legal system) on inward FDI. Their study included 50 developed countries from 1985 to 1997. Asiedu, Jin and Nandwa (2009) use a sample of 35 low-income and 28 Sub-Saharan countries over 1983 to 2004 to show that the risk of expropriation of FDI leads to under-investment, and decrease of FDI from optimal levels in a country. Using the two-way FDI flow model, Qin (2000) shows that the reduction of exchange rate risk leads to an increase in two-way FDI.

For the past two decades, the total volume of FDI has been constantly increasing (Fig 2.1) along with the attention paid to the relationship between terrorism and FDI. The empirical evidence from the literature studying the relationship between terrorism and investment shows that terrorism risk, domestic terrorism, and international terrorist attacks have a negative effect on FDI (Sandler and Enders, 1996; Chen and Siems, 2004; Blomberg, Hess and Orphanides, 2004; Eckstein and Tsiddon, 2004; Frey, Luechinger, and Stutzer, 2007; Abadie and Gardeazabal, 2008; and Llusà and Tavares, 2010).<sup>3</sup> In their case study of Greece and Spain, Enders and Sandler (1996) find that the countries suffered a 13.5% and 11.9% decrease in net FDI due to terrorist attacks in the period from 1975 to 1995.<sup>4</sup> Abadie and Gardeazabal (2008) show that the risk of terrorism

---

<sup>3</sup>The referred studies measure FDI as net FDI, as percentage of GDP, as FDI stocks, or as FDI flows, but all of the studies find a similar negative effect of terrorist attacks.

<sup>4</sup>In the literature, there are a number of papers studying the negative effect of terrorism on economies

lowers the expected returns of investment, reducing it in a country where terrorism risk is high. Enders, Sachsidia and Sandler (2006) use time series analysis to show a negative short term effect of the 9/11 attacks on investment, and using panel data they show the negative effect of international terrorism on U.S. investments abroad.

In Filer and Stanišić (2012), we study the impact of terrorism on capital flows in over 160 countries over a 25-year period. We find that terrorist attacks significantly decrease FDI flows, but have no effect on external debt or portfolio investments. The results of the study are in line with existing literature that FDI are more vulnerable to political (terrorism) risks than other forms of capital flow (Lee and Powell, 1999). In addition, we find that terrorist attacks have a negative spillover effect on investments in neighboring countries, and cultural characteristics matters more than geographical characteristics.

Despite empirical evidence of the negative effects of terrorism on investment, I find avenues for expansion in methodological approaches used to date. In this paper, I use individual country pairs in a given year as units of observation. This approach has been applied in previous literature (Hallward-Driemeier, 2003; and Razin, Rubinstein, and Sadka, 2004; Malečková and Stanišić, 2011), but not in the context of terrorism and FDI. The novelty of this approach is in identification of investors (targets) and hosts (perpetrators) in investment flows (terrorist attacks). This type of matching provides exact estimations of the economic costs of terrorist attacks in terms of lost investments. Previously, authors used panel data (Blomberg, Hess, and Orphanides, 2004; Enders, Sachsidia, and Sandler, 2006; Llusà and Tavares, 2010; Filer and Stanišić, 2012) or time series (Abadie and Gardeazabal, 2003; Eckstein and Tsiddon, 2004; Chen and Sims, 2004; and Li and Shaub, 2009) to estimate the effect of terrorism on investments. All studies show a negative impact of terrorism on investment, but the relationship can be explored in more detail. For example, how great is the decrease of FDI flow between countries due to terrorist attacks? For what time period does the effect dissipate? Additionally, in this paper I examine the spillover effects of terrorism among investors and discuss the differences between general security conditions and the particular security relationship between countries.

---

as well. For example, Abadie and Gardeazabal (2008) find that terrorism produces a 10-percent negative difference between Basque per capita GDP and similar regions in Spain where terrorist attacks have not occurred. Eckstein and Tsiddon (2004) look at the effect of terrorism on the Israeli economy and find that even though the death rate from terrorism is similar to the death rate from car accidents in Israel, terrorism affects the economy in far more severe ways.

## 2.3 Methodology

Bilateral investment datasets usually suffer from the missing observations problem. Razin, Rubinstein, and Sadka (2004) assume that for observations where investment flows are observed, investment profits are definitely more than zero. Since the profit on an investment is a latent variable, the authors use available information on investment costs: If the costs are smaller, the probability of profits greater than zero is higher. Therefore, using an investment's fixed setup costs, the authors estimate the probability of investment between countries. In this step, they estimate the "selection hazard," or the inverse Mill's ratio, and include it in the OLS model of FDI flow between countries in order to correct for the sample selection problem.

### FDI Flow Model

I use Razin et al. (2004) bilateral investment model to estimate the effect of terrorist incidents on investment flows between countries. The model uses individual country pair investment flow data, and it describes the investment from one country to another by:

$$Y_{i,j,t} = \mathbf{X}_{i,j,t}\beta + U_{i,j,t}, \quad (2.1)$$

where  $Y_{i,j,t}$  is a variable denoting flow from the sending  $j$  to the receiving country  $i$  in period  $t$ . This variable can be positive or negative, or it can also be zero when investments produce a profit which is below some threshold.  $X_{i,j,t}$  is a vector of explanatory variables;  $\beta$  is a vector of coefficients, and  $U_{i,j,t}$  is a normally distributed error.<sup>5</sup> The error term contains both time invariant differences between country pairs (for example, wage rate differences) and country pair specific time variant heterogeneity. If the missing observations are replaced with zeros, the results will be biased because the sample is non-random. In those cases, the best choice is an estimation method that corrects for the sample selection problem. In order to establish the sample correction steps, the authors start with indicator function that for all observed flows is:

$$D_{i,j,t} = \begin{cases} 1 & \text{if } Z_{i,j,t} > 0; \\ 0 & \text{otherwise} \end{cases} \quad (2.2)$$

---

<sup>5</sup> $U_{i,j,t}$  is with 0 mean and standard deviation  $\sigma_U^2$ .

where

$$Z_{i,j,t}^* = Y_{i,j,t} - C_{i,j,t}, \quad (2.3)$$

where  $C_{i,j,t}$  are the fixed setup costs of investment. Razin et al. (2004) show that there are at least two variables describing fixed setup investment costs: (i) a lagged investment participation variable equal to zero if in the previous period there were no investments or 1 if there were; and (ii) a measure of capital openness in the sending country, which conditions the ease of acquisitions of greenfield establishments important for new investments.<sup>6</sup>

The profit function is estimated by:

$$Z_{i,j,t} = \mathbf{X}_{2,ij,t}\gamma + V_{i,j,t}, \quad (2.4)$$

where  $X_{2,i,j,t}$  includes a set of control variables from equation (1) and two additional variables that describe the investment costs (lagged FDI and measure of the sender's capital openness.) Therefore, before estimating the investment flow model, one needs to examine the probability that a sender will make an investment in a receiving country. The Heckman sample correction method meets these requirements and can be summarized in two steps. First, it estimates the probability of one country investing in another, equation (2.2); and, second, under the condition that investments occur, it estimates factors significant for the size of investment, or flow equation (2.1).

---

<sup>6</sup>UNCTAD contains negative FDI outflows (disinvestments) but the lagged dummy is equal to 1 only with positive investments.



The sample correction estimation model of the effect of terrorism on FDI flow between countries is:<sup>7</sup>

$$E(Y_{i,j,t}|X_{i,j,t}, D_{i,j,t} = 1) = \mathbf{X}_{i,j,t}\beta + \beta_\lambda\lambda, \quad (2.5)$$

where  $\lambda$  is the inverse Mill's ratio controlling for the sample selection bias. A common issue in the literature studying the relationship between investments and terrorist attacks is reverse causality. The presence of foreign capital can indirectly decrease the cost of terrorist attacks by making targets accessible, consequently increasing the number of attacks. Abadie and Gardeazabal (2008) argue that if bias exists, it is a positive bias in the estimated coefficient, which would not change the qualitative characteristic of the coefficient; it would just make the coefficient larger. To address this issue, Li and Schaub (2004) use the same terrorism dataset as in this study, and find no evidence that “globalization”, through international trade, FDI and portfolio investment, increases the number of terrorist attacks against U.S. targets. If the presence of FDI in a country spurs terrorist attacks, then there would be a positive correlation between the number of investors and pair attacks in a host country. The top graph in Fig 2.2 shows no evidence of such a correlation. By the same token, an increase in the number of countries where investors invest would be followed by more pair attacks. However, the middle graph in Fig 2.2 shows no evidence of such a correlation either. Finally, the bottom graph in Fig 2.2 shows no correlation between the number of receiving countries where investors from the United States invest and attacks against the U.S. In this paper, in order to address any possible concerns regarding reverse causality, I use lagged terrorism variables, relying on the available resources and mentioned evidence from the literature.

## 2.4 Data

### 2.4.1 The Sample

The sample contains pairs of 23 sending and 52 FDI receiving countries from 1995 to 2010. The sending countries are the top 23 countries by standards of quality of life.<sup>8</sup> In total, 23 sending paired with 52 receiving countries equate to 1,196 country pairs. However, out of the total number of pairs, data are available for 817 (68%), while 379 (32%) pairs are

---

<sup>7</sup>For detailed steps of the model see Razin et al. (2004).

<sup>8</sup>World Bank, [www.worldbank.org](http://www.worldbank.org)

missing. From the total number of observations, 19,136 (1,196 pairs over 16 years), FDI is different from zero in 7,080 observations (37%), while 12,056 observations (63%) are missing. Out of the 12,056 missing observations, 6,855 are missing pairs over 16 years, while 5,201 are missing years for observed pairs.<sup>9</sup> FDI receiving countries with the highest number of missing pairs are: Trinidad and Tobago, Mauritius, El Salvador, Honduras, and Panama. I find no evidence that the missing data are biased towards countries from certain continents. If I examine FDI sending countries in missing pairs, I find that smaller economies (New Zealand, Cyprus, Greece, and Ireland) have the highest number of missing pairs. On average, an FDI sending country invests in 35 out of 52 countries, while large economies like the United States, the United Kingdom, Germany, France, and the Netherlands invest in most of the FDI receiving countries. Theoretically, an investor could invest in 169 host countries.<sup>10</sup> However, the country-pair dataset contains information on 52 receiving economies.<sup>11</sup> I use FDI country-level data to investigate if there are any particularities regarding this subgroup of countries since there is no explicit rule, except the availability of data, by which the 52 countries are chosen.<sup>12</sup> I use country-level investment flows from UNCTAD worldwide data for the period from 1995 to 2010. I estimate equation (2.1) using the fixed effects panel data estimation method and the ratio of FDI flow and the countries' GDP as the dependent variable. In addition, I include a dummy variable that equals 1 if the receiving country is in the country-pair dataset.<sup>13</sup> The estimation results show no significance of the variable that describes countries from the country-pair dataset. I find these results sufficient to conclude that the estimation results of this study are valid for any other subgroup of receiving countries.

---

<sup>9</sup>I compared the FDI country pair UNCTAD dataset with similar datasets from the IMF and OECD sources. The IMF dataset is available for two years only, 2009 and 2010, while OECD's dataset spans from 2001 to 2010. I find that there are differences between the datasets regarding the recorded number of observations. Controlling for the same years, I find that UNCTAD has the least missing observations for given pairs. I find that there is an 80% overlap among the missing data from UNCTAD, IMF, and OECD datasets. The observations for which datasets overlap show that there is a difference in recorded FDI flows ranging from 0 to more than 3,000 percent. A possible explanation is that this is due to differences in the definitions of FDI used by the datasets. For further details on how definitions differ across datasets refer to Duce (2003).

<sup>10</sup>169=192-23; The United Nations has 192 registered countries ([www.un.org](http://www.un.org)).

<sup>11</sup>Appendix A contains detailed information about methodology and the sources of UNCTAD FDI country pair data.

<sup>12</sup>The UNCTAD collects data on pair FDI flows based on the reports from FDI receiving countries. For more details regarding the UNCTAD resources, see Appendix 2.A

<sup>13</sup>From this model, I also exclude specific country pair variables

## 2.4.2 The Dependent Variable

The average size of investment outflow from FDI sending to receiving countries is 91,413 million current US dollars per year (s.d. 175,161).<sup>14</sup> The average share of FDI flow in the receivers' GDP is 0.2%, with a standard deviation of 0.5% (Table 2.1). In Table 2.2, the right-hand side column shows pairs of countries with the highest outflow for 16 years. The country pair with the largest investment is the United States to Mexico (157,084 million USD) followed by Japan to China (61,992 million USD).<sup>15</sup> Table 2.3 shows the average share of FDI flow in GDP for the total period of 16 years. Table 2.3 shows FDI receivers ordered by the 16-year averaged GDP; the last row in Table 2.3 shows the total FDI outflow from sender to receiver in 16 years. The matrix shows that poor countries receive a small share of the world total FDI flows. At the same time, these investments have the highest importance for receiving countries (Vanuatu, 14%; Bosnia and Herzegovina, 15%; or Papua New Guinea, 31% of GDP). On the other hand, Mexico, Brazil and Russia, as large economies, attract most of world's FDI, which make up significantly smaller shares of their GDP, amounting to 3%, 4%, and 5% respectively.

## 2.4.3 Terrorism Variables

*Domestic attacks* include the number of domestic terrorist incidents that occurred in a receiving country, and is taken from the Global Terrorism Database (START, 2011). This variable includes terrorist incidents where both perpetrators and targets are nationals of the same country. The average number of domestic terrorist incidents (Table 2.1) per year is 20 (s.d. 61). The countries with the highest domestic terrorism are Pakistan, India and Colombia (Table 2.4).<sup>16</sup> The variable *International attacks* represents the number of international terrorist attacks in an FDI receiving country. This variable includes

---

<sup>14</sup>The definition of FDI from UNCTAD is: *FDI inflows and outflows comprise capital provided (either directly or through other related enterprises) by a foreign direct investor to a FDI enterprise, or capital received by a foreign direct investor from a FDI enterprise. FDI includes the three following components: equity capital, reinvested earnings and intra-company loans. Data on FDI flows are presented on a net basis (the credits from capital transactions less debits between direct investors and their foreign affiliates). Net decreases in assets or net increases in liabilities are recorded as credits, while net increases in assets or net decreases in liabilities are recorded as debits. Hence, FDI flows with a negative sign indicate that at least one of the three components of FDI is negative and not offset by positive amounts of the remaining components. These are called reverse investment or disinvestment.* The complete list of resources that UNCTAD uses to collect the data are described in detail in Appendix 2.B, Table 1.B.

<sup>15</sup>USD stands for "current US dollars".

<sup>16</sup>I use information about perpetrators and targets to identify which attacks are domestic and which are international. If parties are of the same nationality as the country in which an incident occurred, it is counted as "domestic".

attacks where perpetrators are nationals of the receiving country, while targets are all other nationalities.<sup>17</sup> I create this variable from the ITERATE dataset (Mickolus, Sandler, Murdock and Flemming, 2004) for the period 1995 to 2010. The average number of international attacks in a receiving country (Table 2.1) per year is 1 (s.d. 4). The country with the most international terrorist incidents over 16 years is Colombia, followed by Pakistan and Nigeria (Table 2.2). The variable *Pair attacks* represents country pair terrorist attacks, also created from the ITERATE dataset (Mickolus et al., 2004). I identify pair attacks as terrorist incidents carried out by the nationals of FDI receiving countries against targets of sending countries using available information on the nationalities of perpetrators and targets.<sup>18</sup> As seen in Table 2.1, the average number of pair attacks is 0.02 per year (s.d. 0.28).<sup>19</sup> In Table 2.2, the left-hand side column shows six pairs of countries by the number of attacks from 1995 to 2010. The pair with the most attacks are Pakistan-United States with 53 attacks in total, while Nigeria and the United States are the second highest, with 29 incidents in total. Out of a total of 389 pair attacks in 16 years, approximately 17% were perpetrated by Pakistan, followed by Algeria (13%) and Nigeria (10%). In 54% of the cases, the United States was the target, followed by France (11%). Descriptions of the variables and detailed sources are in Appendix 2.B, Table 1.B.

#### 2.4.4 Exclusion Restriction Variables

The main assumption used in the sample correction method is that the fixed set-up costs affect investment profits and therefore determine the probability of a sender making an investment in a receiving country.<sup>20</sup> The FDI participation dummy and the sender's capital openness increase the probability of investment by decreasing the set-up costs of investment (*FDI dummy*). The authors assume that if countries had a positive invest-

---

<sup>17</sup>Target nationalities include not only the 23 sending country nationals but also other foreign targets. I decided to use ITERATE as main dataset for international and pair-specific attacks because it is used in the literature more often, and includes data on only international attacks. For a discussion on the differences among terrorism datasets, see the analysis of "WITS Impact on Scholarly Work on Terrorism" (Krueger, Laitin, Shapiro and Stanišić, 2011). Unpublished manuscript.

<sup>18</sup>The ITERATE dataset contain only international terrorist incidents, including information on both the nationality of perpetrators and targets. I count pair attacks regardless where they happened. For example, if perpetrator of country "X" participated in an attack against nationals of country "Y" in country "Z", this attack will be counted as a terrorist attack of "X" against "Y". This approach was used in previous literature by Krueger and Malečková (2009), and Malečková and Stanišić, (2011).

<sup>19</sup>*Pair attacks* are not included in the *International attacks*

<sup>20</sup>For a further discussion on how OLS or Tobit estimates are biased if the fixed set-up costs are disregarded, refer to Razin, Rubinstein, and Sadka, (2004).

ment flow in the previous year then again in the current year, the investment set-up costs will be lower. At the same time, the more liberalized a sender country's capital markets are, the more flexible financial flows are between the sender and receiver. For example, acquiring invested capital abroad, which is characteristic of greenfield investments, is easier when the sender's capital markets are more liberalized. To capture the sender's capital openness I use variable *KAOPEN sender* from Chin and Ito (2008). More details about the index is provided in the following section.

## 2.4.5 Control Variables

The rest of the control variables in the model are grouped in three categories: economic, institutional, and geographical variables.

- Economic variables:
  - FDI stock in the previous year (*FDI Stock*) in a receiving country from the UNCTAD dataset. Controlling for existing stocks of FDI addresses concerns of preconditioned factors for the attractiveness of FDI.<sup>21</sup>
  - Gross Domestic Product (GDP) per capita for both the receiving and FDI sending countries (*GDP per capita receiver*; *GDP per capita sender*) are standard variables that control for variation of FDI due to the development (or size) of the economies. These variables are from the World Bank Development Indicators database.<sup>22</sup> Even though the reason for including these variables in the model is straightforward, it nevertheless deserves careful consideration. For example, the size of the economies can affect FDI flows, while increase of FDI can affect size of the economies. FDI flows may in return affect both economies, leading to reverse causality bias. To overcome this issue, the usual approach is to instrument GDP per capita variable with their previous year values as control variables (Razin et al., 2004).
  - *Educational gap* captures the differences in human capital between countries. It is calculated as a ratio between the average years of schooling in an FDI receiving and sending country. The data are from the World Bank Development Indicators.

---

<sup>21</sup>This variable includes the stock of all investors in the country (investments made by investors who are not among 23 investors observed in this study)

<sup>22</sup><http://data.worldbank.org/indicator>

- The group of economic variables includes so-called “mass variables” referring to the populations of both countries (*Population receiver*; *Population sender*).
- Institutional variable:
  - To control for institutional restrictions on the flow of capital, I use the Financial Openness Index (*KAPOEN receiver*; *KAOPEN sender*) developed by Chin and Ito (2008). The index describes the financial “climate” in a country. It is derived by using the IMF’s Annual Report on Exchange Agreements and Exchange Restrictions (AREAER), which contains information on countries which have multiple exchange rates, restrictions on current account transactions, restrictions on capital account transactions, and requirements for the surrender to the government of currency earned through exports (Chin and Ito, 2008).<sup>23</sup>
- Geographical variables:
  - Geographical distance and the common official language between sender and receiver countries belong to the group of geographical variables (*Distance*; and *Common Language*). If countries are further apart, or if they do not have a common official language, then costs in time, transportation of goods, and maintenance are higher, making investment less attractive. Both variables are from the country bilateral dataset by Centre d’Etudes Prospectives et d’Informations Internationales (CEPII).<sup>24</sup>

## 2.5 Results

### 2.5.1 Base Model

Tables 2.5 to 2.10 show the estimation results of the sample selection correction model of the relationship between terrorism and investment. I jointly estimate “FDI flow” and “Selection” equations by a maximum likelihood estimation technique. Each specification in the output tables contains two columns: the estimation results of investment magnitude on the left and results of investment likelihood on the right.

---

<sup>23</sup>For a complete discussion of how this index compares to other indices in the literature, please refer to Chin and Ito (2008).

<sup>24</sup>[www.cepii.fr](http://www.cepii.fr)

## Probability of Investment

The dependent variable in the selection equation equals one if a country pair has an FDI flow recorded in the previous year; otherwise it is zero. In the following section, I discuss the variables that have a robust significant effect on the probability of investment from the estimation results shown in Table 2.6. The amount of accumulated FDI stocks in a host country increases the probability of receiving new investments. At the same time, the negative coefficient of the receiver's GDP per capita implies that larger host economies are less interesting to investors. This could be because the comparative advantage over accumulated capital plays a major role in the likelihood of an investment being made. Therefore, they are interested in countries where the accumulation of capital is lower and their advantage is greater. A lower educational gap between the receiving and sending country decreases the probability of investment. By the same token, the comparative advantage over accumulated capital plays a major role in the likelihood of an investment. Investors search for countries over which they have a comparative advantage in human capital, hence, those which have less educated labor. Terrorism has a significant negative effect on the probability of investment between countries. *Pair attacks* significantly decrease the probability of investment. Incidents of domestic terrorism have no effect on the probability of investment, but this does not imply that domestic terrorism has no effect on the investment climate. The variation of this variable is in the fixed effect included in the estimation, affecting all investors present in the host market by the same amount.<sup>25</sup> Finally, the results from Table 2.6 show that if sender and receiver countries are closer, or share a common language, the probability of investment is higher. Both exclusion restriction variables are significant for probability of investment ( $p < 0.001$ ). If an investor and a host country had a positive flow of FDI in a previous year, and an investor's capital markets are more liberalized, the chances of investment between countries increase significantly (Table 2.6). If I compare R-square from the selection estimations with and without the exclusion restriction variables, I find that the goodness of fit measure improves by 35% when exclusion restriction variables are included ( $R^2 = 0.201$ ) compared to ( $R^2 = 0.131$ ). I also perform the Hausman test, where the null-hypothesis is that

---

<sup>25</sup>Terrorist attacks (excluding pair attacks) have a positive and significant effect on the probability of investment. This result infers that for the investors in the country pair, the probability of investment increases at the time when other countries suffer attacks. The interpretation of this result is controversial because it suggests that attacks against some investors represent investment opportunities for others who are not directly jeopardized. In order to test the robustness of this result more detailed data are needed; for example, between country investments by industries, sectors and type of firms.

the difference in coefficients is not systematic when using a sample selection correction method. The test does not reject the null-hypothesis, suggesting that using instruments insures efficient estimated coefficients.

## Investment Size

Table 2.5 shows the estimation results of the effect of economic, institutional, geographic and terrorism variables on FDI flow given that investment between countries exists. The estimated model in all specifications is log-linear, and therefore, the interpretation of estimated coefficients is as semi-elasticities or elasticities. Accumulated FDI stock significantly increases investment flow between countries. If stocks increase by one standard deviation (1.866), or by 25 percent of the average FDI stock in a receiving country, the share of FDI in GDP increases by 1.185 percent ( $p < 0.001$ ).<sup>26</sup> Table 2.5, columns (2) to (4), show that the coefficient *GDP per capita receiver* is negative and significant. It implies that the relative size of the investment in a receiver's GDP is larger for smaller economies. Section 4.2 offers a more detailed explanation of this result. The results from Table 2.5 show that the "mass variables" significantly effect FDI flow between countries. The population size of an FDI receiving country has a negative significant effect, typical for larger economies. On the other hand, the size of the population of countries sending FDI has a positive significant effect on FDI flow (0.877,  $p < 0.001$ ), implying that larger economies invest more. The results from Table 2.5 show that more capital openness has a robust positive effect on the total volume and share of FDI in GDP. If receiving country capital openness increases by one standard deviation (1.423), or by almost five times the sample average, the share of FDI in GDP increases by 17%.<sup>27</sup> Next, a shorter geographical distance between sender and receiver, or a common official language, significantly increases investments. The *Pair attacks* have a significant negative effect on investment flow between countries. If terrorist incidents against FDI sending countries increase by one standard deviation (0.32), or over nine times the sample average, the share of FDI in GDP decreases by 14%. The 14% decrease of the average FDI share in GDP (0.002) is a decrease of 0.0003 points in the share of FDI in GDP. The magnitude of the impact remains similar across different specifications in columns (1) to (4) ( $-0.427$ ,  $p < 0.001$ ).<sup>28</sup>

---

<sup>26</sup>Both variables are in log(.); therefore,  $1.185 = 0.635 \cdot 0.866$

<sup>27</sup> $17\% = 0.117 \cdot 100 \cdot 1.423$

<sup>28</sup>I also estimate the model with the fatalities (number of killed or injured) in attacks and find those variables insignificant. This result is in line with previous results on the lack of evidence that the number of fatalities affects investors (Filer and Stanišić, 2012).



Generally, there is a low probability that attacks will change by more than nine times the sample average, therefore I calculate the magnitude of the impact if attacks between countries double. In that case the decrease of FDI flow from targeted sender in receivers' GDP will be 1.2% The incidents of domestic terrorism decrease investment; if the attacks increase by one standard deviation (61), or for three times the sample average, the share of FDI in GDP falls for 6.1% ( $p < 0.001$ ).<sup>29</sup> Table 2.5 shows the correlation coefficient between the cross-equation error terms  $\rho(U_{i,j,t} \text{ and } V_{i,j,t})$ . The coefficient is significant, suggesting that the selection and FDI flow equations are indeed dependent. The coefficient of the inverse Mill's ratio ( $\lambda$ ) in FDI flow equations is significant, indicating that the probability of investment and the investment size are dependent stages of investment. The ratio serves to correct for sample selection bias, and it is therefore included as an additional variable in the FDI flow estimation equations.

## 2.5.2 Robustness Checks

In Table 2.6, I include additional variables to the baseline model specification from Table 2.5, column (2), to test for the robustness of results against omitted variable bias. In Table 2.6, columns (1) to (7), the estimated effects of economic, institutional, geographic and terrorism variables on FDI flows and selection do not change relative to earlier results.<sup>30</sup> The estimated coefficient of pair attacks remains negative and significant. The size of the estimated coefficient remains almost the same except when *Armed conflict* (controlling for civil war) is included as an additional variable (Table 2.6, column (1)). In that case, the coefficient falls by 15%, and the magnitude of the impact decreases to 12%, which is only a 2% change relative to the earlier estimated magnitude (14%). Table 2.6, column (1) shows the estimation results of the baseline specification model extended by the dummy variable *Armed conflict*. This variable accounts for the occurrence of civil war, which is a different security measure from terrorism. The Peace Research Institute in Oslo (PRIO) produces UCDP/PRIO Armed Conflict Database for the period from 1946 to 2008, which defines armed conflict as: “*a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths*”.<sup>31</sup> I create the dummy variable *Armed conflict* which equals 1 if the FDI receiving country

---

<sup>29</sup>  $6.1\% = -0.001 \cdot 100 \cdot 61$

<sup>30</sup> Interpretation of these results are discussed in more detail in section 5.2.

<sup>31</sup> [www.pcr.uu.se/research/ucdp/datasets/ucdp\\_prio\\_armed\\_conflict\\_dataset/](http://www.pcr.uu.se/research/ucdp/datasets/ucdp_prio_armed_conflict_dataset/)

was engaged in a civil war. Countries that engaged in armed conflict from 1995 to 2008 include Cambodia (from 1995 to 1998); Colombia (from 1995 to 2008); India (from 1995 to 2008); Myanmar (from 1995 to 2008); Peru (from 1995 to 1999; and from 2007 to 2008); and the Philippines (from 1998 to 2008). The estimation results from Table 2.6 show that civil war significantly decreases FDI flow between countries (0.362,  $p < 0.05$ ).<sup>32</sup> In Table 2.6, column (2), the baseline model is extended by the variable *Tertiary* that captures variation in the share of the receiver’s population with a tertiary level of education. The results from column (2) show that an increase in the share of a population with tertiary education increases FDI flows, while decreasing the probability of investment. In the selection equation, the estimated coefficient is negative and significant, inferring that larger shares of a population with tertiary education deter investment probability. This result is explained by the comparative advantage hypothesis discussed in section 5.2. At the same time, in the case when investments exist, a larger share of the population with tertiary-level education increases the investment size. This result might be due to the higher costs associated with more educated labor in the host country.

Further, natural disasters play a significant role in the distribution of international investments across countries (Abadie and Gardeazabal, 2008; Filer and Stanišić, 2012). In Table 2.6, column (3) I include natural disasters as an additional control variable. The natural disasters data are from the EM-DAT dataset produced by the Center of Research on the Epidemiology of Disasters (CRED) from 1900 to 2008.<sup>33</sup> The results from column (3) confirm previous findings in the literature that natural disasters significantly decrease FDI flows. In Table 2.6, column (4), I estimate the main specification model in the 5-to-95 percentile range to test for the robustness of results when outliers are excluded and find no significant changes in the results. Razin, Rubinstein, and Sadka (2004) use three-year averaged variables in order to smooth the variation in the variables. Applying averages decreases standard errors, and smaller standard errors imply “tougher” significance levels of coefficients. Table 2.6, column (5) shows the estimation results of the baseline specification model with three-year averages. The change in standard errors does not change the significance of most of the results. The negative significant result of pair

---

<sup>32</sup>In Selection equation in column (1), the variable *Armed conflict* has a positive significant effect ( $p < 0.1$ ). This result suggests that civil war positively affects the probability of investment, which is counter-intuitive. This is most likely a statistical artifact. Future studies that examine the effect of civil war on investments can test this result.

<sup>33</sup>For a disaster to be entered in the dataset it has to meet one of three conditions: 1. Ten or more people killed; 2. A hundred or more people reported affected; 3. A declaration of a state of emergency; 4. A call for international assistance. For further details refer to [www.emdat.be](http://www.emdat.be)

attacks remain robust, and nearly doubles ( $-0.942$ ,  $p < 0.01$ ). In this case, the current pair attacks are an average of attacks in the current and previous two years, while lagged pair attacks represent the average of the previous 4th, 5th and 6th years. I find that the coefficient of current attacks is significant, implying that the effect of pair attacks on FDI outflow dissipates after two years. In order to test if any of investors are responsible for the significance levels of results, I estimate the main model specification 23 times, each time excluding one of the FDI sending countries.<sup>34</sup> The estimation results regarding economic, institutional, geographic and terrorism variables remain similar with a similar size of coefficients and confidence levels. The estimated coefficient of the *Pair attacks* ranges from a minimum  $-0.288$  ( $p < 0.10$ ) to a maximum of  $-0.493$  ( $p < 0.01$ ). I find that none of the investors are responsible for the significance of results. Table 2.6, column (6) shows estimation results when the United States, as the investor with the most attacks, is excluded. I repeat the procedure with FDI receiving countries and estimate the model 52 times, each time excluding one of the countries.<sup>35</sup> The results of the negative effect of pair attacks on FDI share in GDP are robust. The coefficient ranges from  $-0.398$  ( $p < 0.10$ ) to  $-0.503$  ( $p < 0.05$ ). Table 2.6, column (7) shows the estimation results when Pakistan, as the country that perpetrated the most pair attacks, is excluded.<sup>36</sup> In the next step, in order to analyze which factors are important for the distribution of investments across receiving countries, I change the dependent variable to the ratio between FDI flow and the sender's total investments ( $FDI_{i,j,t}/FDI_{j,t}$ ). Table 2.1 reports that the average share of total investment per FDI receiving country is 0.039 per year (s.d. 0.601). Table 2.7, columns (1) to (3) show the estimation results of the baseline specification; a model with a modified dependent variable. The results imply that investment distribution across receiving countries depends on the same economic, institutional and geographic variables as in the case when the dependent variable is the share of FDI in the receiver's GDP. The only difference is in the direction of the effect of the receiver's GDP per capita. In this case, the coefficient is positive, implying that the larger share of the sender's "investment pie" goes to bigger economies. The results in Table 2.7 show that *Pair attacks* remain a significant predictor of change in FDI flows. If attacks from receiver to sender increase by one standard deviation (0.320), or more than 9 times the sample average, the share

---

<sup>34</sup>The estimation tables are provided on my personal web-page: [home.cerge-ei.cz/dragana/](http://home.cerge-ei.cz/dragana/)

<sup>35</sup>The estimation tables are provided on my personal web-page: [home.cerge-ei.cz/dragana/](http://home.cerge-ei.cz/dragana/)

<sup>36</sup>In addition to these specifications, I extend the baseline model with 5-year regional growth rates and find no differences in the results.

of investments in the receiver's economy drops 11% of the average FDI share.<sup>37</sup> The results from Table 2.7 show that, given an FDI flow between countries exists, incidents of domestic terrorism significantly decrease the share of a sender's investments in a host country. If incidents of domestic terrorism change by one standard deviation (61.313), or three times the sample average, the share of investments falls 12% (0.005 points).<sup>38</sup>

## Spill-over Effect

With the available data set, I can analyze the spillover effect among investors once FDI flow between countries exists. Table 2.7, column (2) shows the estimation results with excluded country pairs where the United States is an investor. In addition, the specification includes the variable that accounts for attacks against U.S. targets. In this way, I estimate the spillover effect of the attacks against the U.S. on other investors. The results show a negative significant coefficient, inferring a negative spillover effect of attacks against the U.S. on the other investors in the country. The reason for a strong negative spillover effect may be the publicity related to these occurrences. To test this hypothesis, one would need data on both news coverage of attacks and types of industries in which the U.S. and other investors invest.

I perform a similar estimation procedure to test for a spillover effect on other investors. Repeating the procedure an additional 22 times, I find that countries with a negative spillover effect are those with the most pair attacks.<sup>39</sup> Table 2.7, column (3) shows a positive spillover effect of attacks against targets from the United Kingdom. This result might be a statistical artifact, because I estimate the model 23 times where coefficients are tested with a 5% probability, which leaves (on average) a chance for one false significant result. Future studies could examine this puzzle with better datasets.<sup>40</sup>

---

<sup>37</sup>The decrease is 0.004 points.

<sup>38</sup>If a country receives an average of 0.039 of a sender's FDI, after a domestic terrorism increase, it receives 0.005 points less.

<sup>39</sup>Germany (25), France (43), and the Netherlands (16). In columns (5) and (6) and the rest of the 20 estimations, I deducted the spillover attacks from *International attacks*. I provide these tables on my personal web-page: [home.cerge-ei.cz/dragana/](http://home.cerge-ei.cz/dragana/)

<sup>40</sup>The positive coefficient of *International attacks* in the selection equation in all specifications can be interpreted as a positive spillover effect of international attacks on the probability of investment for those investors who are not directly jeopardized. However, in order to prove that this result is not a statistical artifact, more data are needed: the exact timing of investments, type of industry where investments are made, and quarterly or monthly data on terrorist attacks.

## World Governance Indicators

In the following section, I extend the analysis with variables describing the governance quality of FDI receiving countries from 1998 to 2008 by Kaufmann, Kraay and Mastruzzi (2009).

Table 2.8 column (1) includes *Political Stability* which describes the threat of terrorism and violence in a FDI receiving country.<sup>41</sup> Fig 2.3 shows the correlation between the index and the number of pair attacks per FDI receiving country. Fig 2.4 and Fig 2.5 show the correlation between the index and international and domestic terrorist attacks respectively.<sup>42</sup> The data shows little predictive power of the indicator for any type of terrorism, while the least predictive are pair attacks.<sup>43</sup> Column (2) includes *Regulatory Quality* which measures the clarity and transparency of the tax system in a receiving country. This indicator also describes other policies that the host government applies in order to insure private sector development. In column (3), the indicator *Control of Corruption* controls for “both petty and grand forms of corruption.” In Table 2.9, column (1) the indicator *Voice and Accountability* measures the level of freedom of expression and media and the degree to which the population can make their voices heard in the present political system. In column (2) the indicator *Rule of Law* controls for contract enforcement and property rights. In column (3), *Government Effectiveness* measures the quality of civil service and the quality of policy formulation and its implementation. Table 2.1 reports an indicator values range from  $-2.5$  (weak) to  $2.5$  (strong): the higher the indicator, the better the countries’ performance. Tables 2.8 and 2.9 show estimation results where significance, direction, and size of the coefficients of economic, geographic and institutional variables do not change compared to earlier results.<sup>44</sup> In Tables 2.8 and 2.9, the negative significant coefficient of pair attacks is robust to all specifications in both stages of investment. The size of the coefficient ranges from  $-0.354$  ( $p < 0.05$ ) to  $-0.493$  ( $0.05$ ). Given that investment flow between countries exists, if pair attacks change by one standard deviation, or nine times the sample average, the share of FDI in GDP changes within the range from 11 to 13%. The effect of domestic terrorism is ambiguous, because in some specifications the estimated coefficient loses significance (Table 2.8, column (1)). The coefficient of international terrorist attacks remains significant and

---

<sup>41</sup>The full name of the variable in the WGI dataset is *Political Stability and Absence of Terrorism*

<sup>42</sup>In Fig 2.5, the outlier is Colombia.

<sup>43</sup>The indicator is a previous year indicator from current attacks.

<sup>44</sup>Here I refer to the results from Table 2.5.

positive in the selection stage of investment (0.007,  $p < 0.1$ ). The results in Tables 2.8 and 2.9 show that the majority of the governance indicators are significant for investments. Table 2.8, column (1) shows a significant and positive effect of *Political Stability* on FDI flow. *Regulatory Quality*, *Control of Corruption*, and *Voice and Accountability* affect both the size and the probability of an investment. Table 2.9, column (2) shows no significance of indicator *Rule of Law*. The indicator is composed of many different dimensions from personal security to property rights. Haggard and Tiede (2011) find that, in the case of developing countries, those different components of the index are not correlated, and therefore lack universal significance in the study of economic growth, and, in the case of this study, FDI. Since country indicators are calculated using different methodologies and sources, I find it suitable to test the robustness of the results against the indicators estimated by different agencies. Therefore, in Table 2.9, column (4), I extend the baseline model with the variable *Overall risk* from IHS Global Insight for the period from 1999 to 2009.<sup>45</sup> The *Overall risk* represents an overall measure of host country risk, and is comprised of Political Risk (25%), Economic Risk (25%), Legal Risk (15%), Tax Risk (15%), Operational Risk (10%), and Security risk (10%). In Table 2.1, the value of the indicator ranges from 1 (weak) to 5 (strong). The estimation results from column (4) show no differences from earlier results and a lack of significance of country risk for investments. One of the reasons for the irrelevance of the variable might be in the fact that this risk combines the measures of general economic conditions in the markets and the particular security relationship between the host and investor. Table 2.10 shows the impact magnitudes the pair attacks and governance indicators have on investment size, given that investment between countries exists. If *Political Stability* changes by one standard deviation (0.781), or by two times the sample average, it leads to more than a 46% change of FDI share in GDP. Given that the investment decision has already been made, this is the largest effect that any variable has on FDI flow. This result supports the hypothesis that terrorism risk is one of the most important factors for investment. The second largest influence is by *Voice and Accountability*, resulting in close to a 28%

---

<sup>45</sup>There are no precise measures of a country's terrorism risk. "Terrorism risk is a number trying to describe a very complex phenomenon" (Abadie and Gardeazabal, 2008, pg 13). Therefore, different methodologies are used in order to estimate these indicators. For example, the World Bank produces World Governance Indicators (WGI, <http://info.worldbank.org/governance/wgi/index.asp>) which uses public opinion surveys to estimate the perception of governance indicators. Other data sets, such as the IHS Global Insight Country Risks (IHS, <http://www.ihs.com>) use different techniques (not available to the public) IHS Global Insight does not disclose its methodology because their estimators are used for commercial purposes.

change of FDI share in GDP when it changes for one standard deviation (0.678), or for two times the sample average. The next indicator by magnitude is *Regulatory Quality* that, among other things, describes the tax regulation system in a country (Table 2.8, column (2)). If *Regulatory Quality* increases by one standard deviation (0.66), or by four times the sample average, this leads to a 20% change of FDI share in the FDI receivers' GDP. The changes in *Rule of Law* in an FDI receiving country has no effect, either on the size or on the probability of investment.

## 2.6 Conclusion

This study empirically investigates how terrorism influences investment flows between investors and hosts. It uses a UNCTAD country pair dataset of 23 investor and 52 host countries over the period from 1995 to 2010. To solve the missing observations problem, I apply the sample selection correction estimation model with the investment fixed setup costs as the exclusion restriction variable as in Razin, Rubinstein, and Sadka (2004). To proxy for fixed setup costs, I use a previous FDI participation dummy and the indicator of an investor's capital openness.

The results of the analysis show that terrorist attacks perpetrated by FDI receiving against FDI sending countries have a significant effect on both the size and the probability of investment. If attacks double, the share of FDI in a receiver's GDP decreases by 1.2% of the sample average.<sup>46</sup> This result is robust to different specifications and modifications of the sample. Future studies could examine the relationship between terrorist attacks and FDI flows using more detailed data (when they become available). For example, with available FDI industry data, researchers can study enter and exit strategies based on the occurrences of terrorist attacks. In this study, I also examine how investors distribute their "investment pie" between hosts, and I find that terrorism plays a significant role here as well, by incentivizing investors to move their capital to less risky economies. In addition, I show that investors who have suffered the most attacks have a negative spillover effect on other investors. The governance indicators, such as *Political Stability*, have the highest impact among the institutional factors, despite having a low predictive power for attacks. Future studies could explain what factors, apart from pair attacks, determine political stability between countries: foreign policies, historical relationships, territorial disputes,

---

<sup>46</sup>If attacks increase by one standard deviation, or by nine times the sample average, the share of FDI in a receiver's GDP decreases by 12% of the sample average.

or other issues. The results of this paper suggest that there is an essential difference between general market conditions that affect all investors in host countries in a similar fashion, and country-pair security conditions that vary across different investors in the host country.

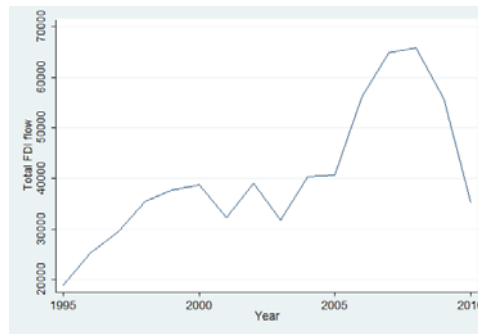


## 2.A Description

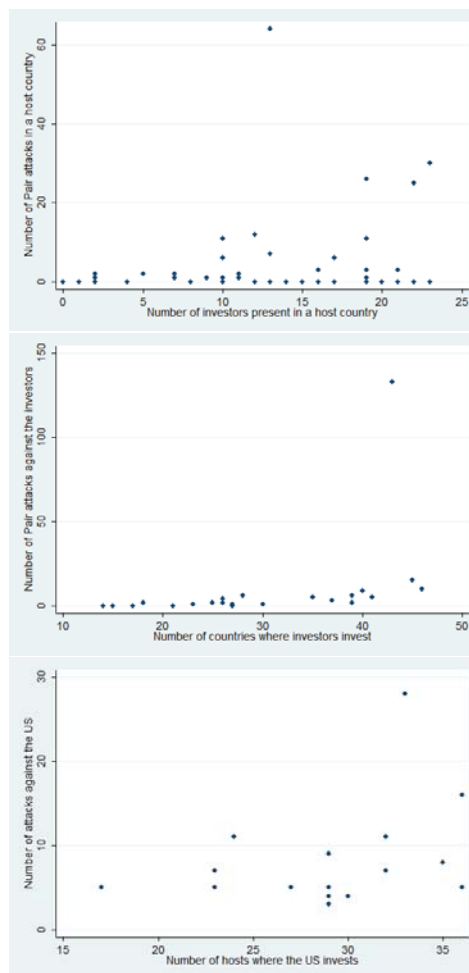
UNCTAD regularly collects published and unpublished national official FDI data directly from central banks, statistical offices or national authorities on an aggregated and disaggregated basis for its FDI/TNC database. These data constitute the main source for the reported data on FDI flows. These data are further complemented by the data obtained from other international organizations such as the International Monetary Fund (IMF), the World Bank, the Organization for Economic Co-operation and Development (OECD), the Economic Commission for Europe (ECE) and the Economic Commission for Latin America and the Caribbean (ECLAC), as well as UNCTAD's own estimates.

For the purpose of assembling balance-of-payments statistics for its member countries, the IMF publishes data on FDI inflows and outflows in the Balance of Payments Statistics Yearbook. The same data are also available in the International Financial Statistics of IMF for certain countries. Data from the IMF used here were obtained directly from the CD-ROMs of the IMF containing balance-of-payments statistics and international financial statistics. For those economies where data were not available from national official sources or the IMF, or for those where available data do not cover the entire period, data from the World Bank's World Development Indicators CD-ROMs were used. The World Bank report covers data on net FDI flows (FDI inflows less FDI outflows) and FDI inward flows only. Consequently, data on FDI outflows, which we report as World Bank data, are estimated by subtracting FDI inward flows from net FDI flows. For those economies in Latin America and the Caribbean for which the data are not available from one of the above-mentioned sources, data from ECLAC were utilized. Data from ECE were also utilized for those economies in Central and Eastern Europe, Central Asia and selected economies in Developing Europe for which data are not available from one of the above-mentioned sources. Furthermore, data on the FDI outflows of the OECD, as presented in its publication, *Geographical Distribution of Financial Flows to Developing Countries*, and as obtained from their web databank, are used as a proxy for FDI inflows. As these OECD data are based on FDI outflows to developing economies from the member countries of the Development Assistance Committee (DAC) of the OECD, inflows of FDI to developing economies may be underestimated. In some economies, FDI data from large recipients and investors are also used as proxies. (<http://www.unctad.org/en/Pages/Statistics.aspx>)

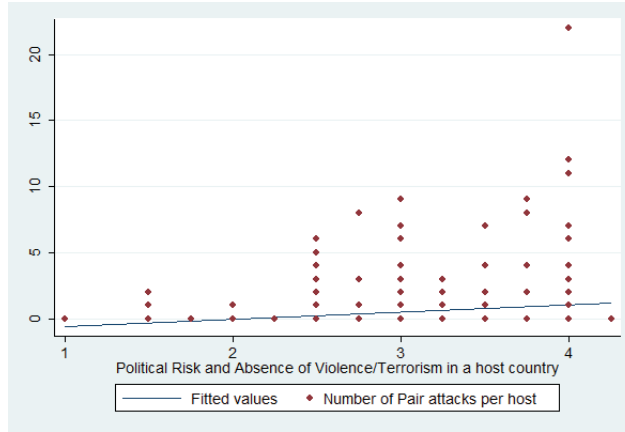
## 2.B Graphs



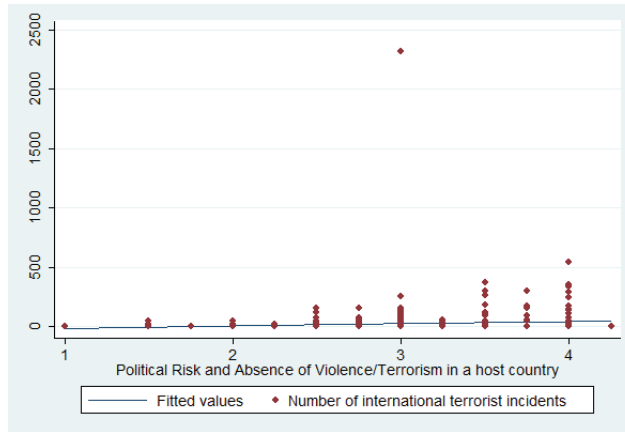
**Figure 2.1:** FDI in millions of USD (current) from 23 FDI sending countries from 1995-2010, UNCTAD data.



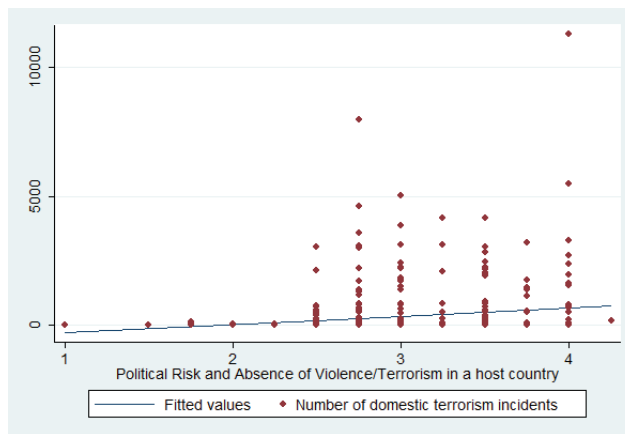
**Figure 2.2:** Correlation between investors, hosts and pair attacks, 1995-2010 from UNCTAD data



**Figure 2.3:** Correlation between pair attacks and WGI's index of Political Stability and Absence of Violence/Terrorism, from 1995 to 2010, UNCTAD data.(R-square=0.036)



**Figure 2.4:** Correlation between international terrorism and WGI's index of Political Stability and Absence of Violence/Terrorism, from 1995 to 2010, UNCTAD data.(R-square=0.010)



**Figure 2.5:** Correlation between domestic terrorism and WGI's index of Political Stability and Absence of Violence/Terrorism, from 1995 to 2010, UNCTAD data.(R-square=0.039)



## Chapter 3

---

# Public Opinion and Terrorist Acts

This paper explores the dimensions of public opinion that are relevant to support for terrorism and their relationship with terrorist attacks. We link the 2007 PEW survey data on opinions about the justification of suicide terrorism in 16 countries of the Middle East, Africa and Asia on nine regional powers which are frequent targets of terrorist acts to the NCTC data on international terrorist incidents between 2004 and 2008. We find that justification of suicide terrorism and unfavorable opinions of regional powers are correlated with occurrences of terrorism, and the effect of each of these dimensions of public opinion varies with the level of the other. In addition, we find a robust positive relationship between the share of people in a country who at the same time justify suicide bombings and who hold unfavorable opinions of a regional power and the occurrences of terrorism originating from that country.<sup>1</sup>

JEL: D74, F59

Key words: Support for terrorism, Public opinion, International terrorism

---

<sup>1</sup>An earlier version of this paper was published in Malečková, J. and Stanišić, D. (2010) Public Opinion and Terrorist Acts, Economics of Security Working Papers Series, 2010, NO. 32; and Malečková, J. and Stanišić, D. (2011) Public Opinion and Terrorist Acts, European Journal of Political Economy, 27(1): 107-121. We thank Štěpán Jurajdák, Randall K. Filer and seminar participants at CERGE-EI and EUSECON for helpful comments. This research was supported by the European Union Seventh Framework Programme under grant agreement no. 218105 (EUSECON). All errors remaining in this text are the responsibility of the authors.

## 3.1 Introduction

Preventing terrorism is a multi-faceted effort. The selection of appropriate means and areas on which to focus is complicated by a lack of agreement among scholars and analysts regarding the causes of terrorism.

Recently, scholars have paid increasing attention to the importance of public support for terrorism as a factor which influences the methods terrorists choose and their decisions to end terrorist campaigns, as well as creating a pool of potential terrorist recruits (Merrari 2005; Katzenstein and Keohane 2006; Gurr 1998). However, few empirical studies examine the relationship between public opinion and terrorist acts, and the mechanism of how public opinion relates to terrorist activity remains unclear. If a connection can be established between public opinion and occurrences of terrorism, then efforts to prevent or limit terrorist incidents should meaningfully focus on influencing public opinion among relevant populations. Concurrently, it would be helpful to determine which dimensions of public opinion matter for the occurrence of terrorism. In a recent article, Alan Krueger and one of the authors of the present paper have examined the effect of public opinion in one country toward another country on the number of terrorist attacks perpetrated by individuals or groups from the former country against targets from the latter country (Krueger and Malečková, 2009). Linking Gallup World Poll data from Middle Eastern and North African countries on the performance of the leaders of nine world powers to the NCTC data on the number of terrorist events, we found a greater incidence of international terrorism when people of one country disapprove of the leadership of another country. The aim of this paper is to gain a more nuanced view of the dimensions of public opinion that may be relevant to the support of terrorism and to check the finding of the previous paper linking public opinion and occurrences of terrorism using different data. We focus on two dimensions of public opinion: The first dimension, opinions about regional powers, expresses the attitude to a country or group of countries that can be considered responsible for regional policy and the status quo; this attitude can be shaped and mobilized through conflict (or a terrorist campaign). The second dimension of public opinion that we analyze, justification of suicide terrorism, expresses support for extreme violence and for terrorism as a means of solving conflicts. As is common in terrorism research, it is difficult to find systematic data that would cover a longer period and a larger set of countries, and to keep the survey questions consistent. We use the 2007 PEW survey and specifically the information on justification of

suicide terrorism and opinions in 16 countries of the Middle East, Africa and Asia on nine regional powers. We then link these data to the NCTC data on international terrorist attacks between 2004 and 2008. We find a wide variation among individual countries concerning both questions. We also find that opinions about regional powers and justification of suicide terrorism are independent. Our analysis suggests that both justification of suicide terrorism and unfavorable opinions of regional powers are correlated with occurrences of terrorism, and the effect of each of these dimensions of public opinion varies dependent upon the level of the other. In addition, we find a robust positive relationship between the share of people in a country who at the same time justify suicide bombings and who have an unfavorable opinion of a regional power and the occurrence of terrorism originating from that country. This has implications for security policy, as the dimensions of public opinion respond differently to propaganda (whether by states or extremist groups) and may be influenced by different means. After a brief description of the data, we provide an overview of the justification rates of suicide terrorism and opinions of citizens regarding nine regional powers in 16 countries of the Middle East, Africa and Asia. We then examine the relationship between these two dimensions of public opinion and their effect on the occurrence of terrorism originating from the 16 countries and targeted against the nine regional powers. We conclude with interpretations of our results and their implications for policy and for further research.

## 3.2 Data

We use data on public opinion from the PEW Global Attitudes Project, specifically the survey issued in June, 2007 - Pew Global Attitudes Project: Spring 2007 Survey, concerning 16 countries in the Middle East, Africa and Asia with large Muslim populations. The PEW surveys are among the most useful databases for the study of public opinion and political violence and terrorism because some of the surveys include large sets of countries and the same survey questions are sometimes repeated over time (unfortunately not always and not always in the same countries). The PEW public opinion surveys are nationally representative.<sup>2</sup> In the 2007 survey, only in Pakistan the samples chosen were urban. In most countries, face-to-face interviews were conducted in local languages and

---

<sup>2</sup>The sample sizes were as follows: Kuwait 500; Malaysia 700; Mali and Senegal 700; Tanzania 704; Ethiopia 710; Palestine Territories 808; Turkey 971; Bangladesh, Egypt, Jordan, Lebanon, Morocco 1,000; Indonesia 1,008; Nigeria 1,128 and Pakistan 2,008.

most of the surveyed population were adults (above 18).<sup>3</sup> Among the survey questions that could be relevant to the study of terrorism, we selected two questions that tap into different aspects of public opinion: first, attitudes towards powers that may be seen as affecting the fate of a country and its region, and, second, attitudes towards (suicide) terrorism. The first dimension of public opinion is represented by the following question: *Please tell me if you have a very favorable, somewhat favorable, somewhat unfavorable or very unfavorable opinion of: (country)?* The particular countries (or groups of countries) about which this question was asked were: China, Egypt, the European Union, India, Iran, Japan, Russia, Saudi Arabia and the United States.<sup>4</sup> We refer to these as countries Y. We construct a variable “Opinion”, which is the percentage of those in a country who have somewhat unfavorable and very unfavorable opinions of country Y. The exact phrasing of the second question is: *Some people think that suicide bombing and other forms of violence against civilian targets are justified in order to defend Islam from its enemies. Other people believe that, no matter what the reason, this kind of violence is never justified. Do you personally feel that this kind of violence is often justified to defend Islam, sometimes justified, rarely justified, or never justified?* This question can be considered problematic as it conflates terrorism and suicide terrorism. Yet, it reflects approval/disapproval of the use of extreme forms of violence and terrorist actions and has been utilized in research to study support for terrorism (Fair and Shepherd 2006). For the purpose of our analysis, we include all the countries where this particular question was asked: Bangladesh, Egypt, Ethiopia, Kuwait, Malaysia, Morocco, Senegal, Tanzania, Mali, Jordan, Lebanon, Indonesia, Turkey, Pakistan, Palestine and Nigeria. We refer to these as countries X. The possible answers to the question were: “often justified”, “sometimes justified”, “rarely justified” and “never justified”. We construct a variable “justification rate” by combining the answers “often justified” and “sometimes justified” and use these answers to construct a rate that represents the percentage of the population that justifies suicide bombing.<sup>5</sup> We measure terrorism through the number of international terrorist incidents that occurred from 2004 to 2008 as collected by the National Counterterrorism Center (NCTC). In the NCTC Worldwide Incidents Tracking System (WITS), a terrorist incident is defined as an incident “in which subnational or clandestine groups or individuals deliberately or recklessly attacked civilians or noncombatants (including

---

<sup>3</sup>Except in Kuwait where face-to-face interviews were combined with interviews via telephone.

<sup>4</sup>We excluded the Egypt-Egypt pair.

<sup>5</sup>The data were provided with the weights, so the adjustments were done for the missing responses, and the answers are weighted and represent a part of the total 100 %.



military personnel and assets outside war zones and war-like settings)” (The Worldwide Incidents Tracking System). As source countries of terrorist attacks, we use the same group of X countries that were included in the public opinion survey. Since we focus on international terrorism, we selected only those incidents where the data show that the perpetrator and the victim were from different countries. In particular, we consider incidents where perpetrators are from countries X and targets (people or property) from countries Y. We created the units of observation by making pairs of countries ( $n_{pairs} =$  ) (Krueger and Malečková, 2009). Not all countries X were asked about countries Y; in total, we created 121 pairs.<sup>6</sup> However, given that the Pakistan and India pair, with 310 recorded incidents, is an outlier in the sample, we excluded this pair from further analysis. We are aware that there is no established production function of terrorism and therefore we rely on models in previous studies in order to measure the effect of public opinion on terrorism. In addition to public opinion, we control for economic, institutional and geographic characteristics (Table 1). For GDP per capita, we use the World Bank Development Indicators datasets and calculate the average GDP per capita from 2002 to 2006. A specific case was the question regarding the European Union since it is not a country, though it can be considered a regional power. For the purpose of calculating the GDP, population and civil liberties, we calculated averages of countries that we assigned to the E.U. group (Germany, France, Belgium, UK, Spain, Italy, Luxembourg and the Netherlands).<sup>7</sup> We also use the World Bank Development Indicators datasets for information about the population. We use data on civil liberties provided by the Freedom House’s dataset. The civil liberties index ranges from 1 to 7, where 7 represents a total lack of civil liberties. Data on religion (specifically the percentage of Muslims in the country) are taken from the CIA Factbook. Geographical characteristics such as distance between the originating and target capital cities are calculated using the Haversine formula and its available online converter.<sup>8</sup>

---

<sup>6</sup>Source countries are those where the question regarding the justification of suicide bombing was asked; target countries are those about which the opinion was asked in the source countries.

<sup>7</sup>We selected these countries as the oldest and leading members of the E.U. This fact is in line with the collection of data on the terrorist incidents against these countries in the period from 2004 to 2008.

<sup>8</sup>Brussels was considered the capital city of the European Union. The data for Haversine formula are from [www.codecadex.com](http://www.codecadex.com)

### 3.3 Public opinion

Analysts from both economics and psychology studying existing terrorist cells have emphasized the importance of public opinion for terrorism. Terrorists are well aware of the relevance of public opinion and plan their attacks accordingly, e.g. choosing the time, location or target that will have the strongest impact on the public (Hassan, 2006; Krueger, 2007). Some empirical studies have also suggested that terrorist attacks affect public opinion, e.g. regarding voting in Israel (Berrebi and Klor, 2006). While the effects of terrorist incidents on public opinion should be kept in mind, scholars agree that public opinion matters for terrorism. Public opinion can provide legitimacy for terrorist acts, impact the selection of tools and methods used in attacks, be a factor in the ways terrorist groups function, decrease the costs of attacks, bolster the pool of potential new recruits, and even, ultimately, determine the survival of such groups. Some scholars even suggest that the process of radicalization operates on a continuum from holding positive views on terrorism through supporting terrorist groups and finally joining these groups (Alonso, 2006).<sup>9</sup> Assuming that the impact of public opinion on terrorism is indeed relevant, it is useful to analyze what dimensions of public opinion are pertinent, as this can aid policymakers to focus their efforts to prevent terrorism. In the paper written with Alan Krueger, negative views that appeared relevant to the occurrence of terrorism concerned the performance of leaders of world powers. In this paper, we look at opinions about nine countries that can be considered regional powers and represent both different cultures and a wide range of international policy stands. Research on anti-Americanism suggests that perceptions of a country are rather complex and consist of both positive and negative attitudes (Katzenstein and Keohane, 2006). In the case of opinions of the United States in Muslim countries, positive attitudes towards American culture and society are shown to go together with negative attitudes towards American policies (Chiozza, 2006). The negative attitudes towards those considered responsible for the political and economic situation are suggested to foster support for terrorism (Tessler and Robbins, 2007). This is relevant because, if support for terrorism reflects essentialist and deeply entrenched views of certain countries, cultures or religions, and terrorists simply “hate us” (usually meaning the Western world) regardless of “our” actual policies, accommodating the grievances of the populations that the terrorists claim to represent (while possibly a worthwhile act

---

<sup>9</sup>Although the IRA and ETA which were studied by Alonso (2006) engage in domestic terrorism, the same logic of recruitment is likely to be at work in groups that focus on international terrorism, not to mention that terrorist organizations often attack both domestic and foreign targets.

in itself) would not lead to a decrease in terrorism. If, in contrast, support for terrorism responds to political situations and their changes, reconsidering political directions may have a direct impact on the intensity of terrorism. The second dimension of public opinion we analyze, justification of suicide terrorism as an extreme form of violence and means of achieving goals, has been used in past research to study support for terrorism particularly in the Middle East. Scholars have looked at individual level data, focusing on the demographic characteristics of the respondents, their religious beliefs and psychological characteristics (Tessler and Robbins, 2007; Fair and Shepherd, 2006; Victoroff et al., 2006; Malečková, 2006). This research, however, did not explore the conditions under which justification of suicide terrorism decreases or increases and its relationship with the occurrence of terrorism. Other studies point out the relevance of the approval of extreme forms of violence as a precondition for joining a terrorist group. A study of the IRA and ETA shows that those who became members of the two organizations had previously believed that extreme violence is useful and would help advance their goals (Alonso, 2006). This makes the analysis of justification of suicide terrorism particularly relevant for research that tries to link public opinion to the occurrence of terrorism. Our analysis shows a wide variety of views on both questions among the 16 countries. A detailed overview of the low and high unfavorable opinions across the 16 countries is in Table 3.2, although the questions about opinions on every one of the nine powers were not asked in all the 16 countries. Table 3 shows that opinions about the regional powers vary from a high average of 0.53 concerning the U.S., to somewhat less negative opinions on the Russian Federation (0.39), Iran (0.37), India (0.36) and the European Union (0.31), to the least unfavorable/most favorable views on China (0.26), Egypt (0.25), Japan (0.20) and Saudi Arabia (0.17).<sup>10</sup> Palestinians hold the most unfavorable views of the U.S. (0.86), while the least unfavorable views on the U.S. are expressed in Mali (0.18). Interestingly, the most negative views on the Russian Federation (0.64), China (0.53) and Saudi Arabia (0.39) are held by the Turks, who also have the highest average of unfavorable views on the nine countries (0.52). Palestinians follow with the average of 0.5; they express the most unfavorable views on the U.S. among the 16 countries (reaching 0.86) and, among the nine regional powers, hold the most favorable opinions of Saudi Arabia (0.33). The following group of high unfavorable averages includes Jordan (0.46), Lebanon (0.43) and Egypt (0.43) (Table 3.4). These opinions are in themselves interesting, but not terribly surprising. The justification of suicide terrorism presents a more intriguing variation.

---

<sup>10</sup>Saudi Arabia was not asked about in all countries, while Japan was.

Across the 16 countries we find that, on average, 23% of the surveyed population believes suicide bombings are justified (Table 3.2). The percentage of those who said in 2007 that suicide terrorism is often or sometimes justified was highest in Palestine, followed by Nigeria and Mali. The percentage was lowest in Egypt, followed by Pakistan and Indonesia. These results, particularly the high justification rate in Mali and low justification of suicide terrorism in Egypt, Pakistan and Indonesia, seem surprising (Fig 3.1). The order of the countries does not change significantly if we only include the most extreme views, i.e. the percentage of those who answered that justification of suicide bombing is “often justified”. In order to explain this variation, we looked at the demographic characteristics of those who believe that terrorism is sometimes or often justified and those who believe that it is rarely or never justified and compared their views on suicide terrorism with previous findings. We performed a pair-wise t-test of justification according to gender (For details see Appendix 3.B). Gender does not seem to play a significant role in the justification rates overall, but in some countries differences among men and women are noticeable. The differences are large in Morocco, followed by Pakistan, Nigeria, Turkey, Indonesia and Senegal. While according to the 2002 PEW survey (Fair and Shepherd 2006, Malečková, 2006), women did not appear to be more peaceful than men, in 2007, men justified suicide terrorism more often than women in most countries, including Turkey, Senegal, Indonesia and particularly Morocco and Pakistan. In contrast, in Nigeria, women expressed significantly more support for suicide terrorism than men. Although these views are interesting, especially compared to previous research, are interesting, gender differences are distributed across the countries with both high and low overall justification of suicide terrorism and thus do not seem to explain the variation. The same is true about age, where we perform pair-wise t-statistic and find no evidence of difference in justification of suicide bombing (see Appendix 2). In a few countries, the younger population (40 and under) tends to support suicide terrorism more than the older population (over 40), but overall the differences between the two age groups are small. One interesting example is Mali, where those aged 40 and under justify suicide terrorism to a larger extent, while e.g. in Bangladesh and Jordan, the population over 40 is more supportive of suicide terrorism. Finally, we combined the two categories and looked at males under 40 as the group most often implicated in suicide terrorism and terrorist acts in general. This does not shed any light on the differences in justification rates among the 16 countries either: only in Mali, a country with high overall justification rates, younger males expressed more radical views in support of suicide terrorism than

older males (See Appendix 3.B). These answers should be compared to earlier surveys in order to see if there are any changes over time. Unfortunately, the surveys are not available for the whole set of countries. Nevertheless, we looked at the PEW surveys with the same question between 2002 and 2007 for the countries on which data are available. We found that in the nine countries where the same question was asked in 2002 and 2007, there is a decrease in support for suicide terrorism. There are no previous results for Mali. However, Indonesia and Pakistan show a noticeable decrease of support between 2002 and 2007: in Indonesia from 5% to 3% and in Pakistan from 19% to 4% among those who say that suicide terrorism is often justified. In Egypt, the data are not available for 2002, but there is a substantial decrease from spring 2006 to spring 2007 from 8% to 2% among those who say that suicide terrorism is often justified.

### 3.4 Statistics

This section describes the statistical analysis of the relationship, first, between the justification of suicide terrorism and unfavorable opinions about the nine regional powers and, second, between the two dimensions of public opinion and the occurrence of terrorism. Fig 3.2 shows no obvious correlation between justification of suicide attacks and unfavorable opinion of the nine regional powers. We conducted the Spearman test of independence between these two variables and found a 19% probability that justification and unfavorable opinion are independent.<sup>11</sup> We looked at the subgroup of countries Y about which the opinions in countries X were most unfavorable (including the European Union and the United States) and found no correlation between unfavorable opinion and justification of suicide attacks in countries X. We also normalized the unfavorable opinion about the target countries to get a comparative number across pairs; as a benchmark we chose Japan since a question about Japan was asked in all the source countries and, on average, Japan is seen in neutral terms. We found no correlation with the justification of suicide bombings (Fig 3.3). On the basis of these analyses, we conclude that the justification of suicide terrorism and unfavorable opinion in countries X towards countries Y are independent. As the next step, we examined whether there is a relationship between the two dimensions of public opinion and the occurrence of international terrorism. We measured the occurrence of terrorism by the number of terrorist incidents originating from countries X (source countries) and directed against countries Y (target countries)

---

<sup>11</sup>When we include the Pakistan-India cell the  $\text{Prob} > |t| = 0.2889$ .

between 2004 and 2008. In our sample, the average number of attacks per country in this period was 7.15. The highest number of terrorist incidents originated from Nigeria, which generated in total 32 attacks in this period.<sup>12</sup> No attacks were recorded from Kuwait, Malaysia, Morocco, Senegal and Tanzania. The average number (standard deviation) of terrorist incidents per pair of countries is 1 (2.92), while the maximum is 23 (the Nigeria, E.U. pair) and the minimum is no attacks for 73% of the total 120-pair sample. The bivariate correlation between the number of attacks from country X towards country Y and the justification of suicide attacks is 0.20 ( $p < 0.05$ ), and the bivariate correlation between the number of attacks from country X against country Y and the unfavorable opinion in country X towards country Y is 0.14 ( $p = 0.11$ ). The dependent variable takes values from 0 to 23 and the value zero represents almost 73% of the total 120 observations, therefore, we tested whether the zero-inflated negative binomial model provides a fit (Krueger and Malečková, 2009).<sup>13</sup> We performed the Vuong test and found that negative binomial model is favored at the 10% significance level. In Table 5, we use a negative binomial model similar to Krueger and Malečková (2009) to estimate the relationship between justification of suicide attacks and unfavorable opinion toward target countries on the one hand and the occurrence of terrorism on the other. Assuming it is not a case of reverse causality, we find that there is a positive relationship between justification of suicide bombing in country X and the number of attacks originating from that country. The increase of justification by one standard deviation corresponds to the increase of the number of attacks by 167%. We obtain similar results for the relationship between unfavorable opinion towards target countries and the occurrence of terrorism. The increase of unfavorable opinion towards a target country by one standard deviation corresponds to a 65% increase in the number of attacks originating from the source country. Next, we control for both measures of public opinion at the same time and then introduce the interaction term between the two variables in order to explore whether the effect of justification of suicide bombing on the occurrence of terrorism varies with the level of opinion and vice versa. We estimate the following models:

$$E(y_1|x) = \exp(\alpha + \beta_1 x_1 + \beta_2 x_2 + \mathbf{X}_n \beta_n + \epsilon) \quad (3.1)$$

---

<sup>12</sup>Excluding the attacks from Pakistan against India, i.e. 310 incidents.

<sup>13</sup>The fact that the values of dependent variable range from 0 to 23 per pair raises problems of overdispersion. The test for overdispersion in our sample shows that it is significant  $V(y|x) = E(y|x) + a * E(y|x)^2$ .

$$E(y_2|x) = \exp(\alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 (x_1 * x_2) + \mathbf{X}_n \beta_n + \epsilon) \quad (3.2)$$

where  $y_1$  is (pair-specific) dependent variable representing the number of attacks originating from country X towards country Y.  $x_1$  is justification of suicide bombing among citizens of country X.  $x_2$  (pair-specific) represents unfavorable opinion in country X towards country Y. In Model (2) we add the interaction term, which represents country X with both justification of suicide bombing and unfavorable opinion towards country Y (also this variable is pair-specific).  $\mathbf{X}_n \beta_n$  is a vector of other control variables that we use in our model, based on the choice of independent variables included in previous studies (GDP per capita of target and source countries; percentage of Muslim population in the country; population sizes of source and target countries; civil liberties in both group of countries and distance between the source and target country's capitals).

Our analysis confirms the findings of earlier studies (Krueger and Malečková, 2009; Krueger and Laitin, 2008; Derin-Gure, 2009), according to which the increase of distance between the source and target country's capitals decreases the number of attacks. The size of a country's population increases the likelihood of terrorist incidents, i.e. the bigger population of a country, the more attacks it will produce. The likelihood of terrorist attacks increases with the level of civil liberties in the target country. Once we control for civil liberties in the target country, we find a lack of evidence that the richer countries are more often targets of international terrorism. We do not find evidence that a higher percentage of Muslims in a country affects the number of attacks originating from that country. We also test for the concave relationship of the effect of GDP per capita of the source countries and find that neither the countries with the lowest nor those with the highest GDP per capita in our sample engage in higher rates of terrorism.

We find a strong correlation between public opinion (justification of suicide bombing and unfavorable opinion in countries X towards countries Y) and the occurrence of terrorism. However, our results suggest that in order for terrorism to occur, both dimensions of public opinion need to be high (Fig 3.4). Assuming that our results are not a statistical artifact, we find that by increasing the justification of suicide bombing by one standard deviation at the lowest level of unfavorable opinion will increase the number of attacks by 28.51%; increasing justification of suicide bombing by one standard deviation at the highest level of unfavorable opinion in country X towards country Y will increase the number of attacks by 266.6% (Fig 3.5). Similarly, we find that increasing unfavorable opinions in

country X towards country Y by one standard deviation at low levels of justification will increase the number of attacks by 14%. Increasing unfavorable opinion by one standard deviation at the high levels of justification of suicide bombing will result in an increase of the number of attacks by 196%. Our analysis suggests that, for the occurrence of terrorism, both dimensions of public opinion need to be present and a high justification rate of suicide bombing in a country will not result in a high number of attacks originating from that country if the rate of unfavorable opinions towards the target country is low. This finding allows two different interpretations: while it is important that in country X there are people who justify suicide terrorism and those who have unfavorable opinion of the target country, these can be two separate groups, or, alternatively, what is significant, is the share of people who both justify suicide terrorism and, at the same time, have unfavorable opinions of country Y. In order to find which of the two interpretations is correct, we used the PEW Survey's individual level data to explore the group of respondents in country X who both held unfavorable views of country Y and justified suicide bombings. We constructed a variable "Justify & Unfavorable Opinion", which represents the share of people in country X who at the same time ("often" and "sometimes") justify suicide bombing and have ("somewhat" and "very") unfavorable opinions towards the target country. Table 3.7 shows the relationship between this group of respondents and the occurrence of terrorism.<sup>14</sup> We find a sizable and positive relationship between the group of people in country X who at the same time justify suicide bombing as a means of struggle and have unfavorable opinions of country Y, and terrorist attacks originating from country X against country Y. We then looked at the different combinations, i.e. the group of people who justify suicide terrorism and have unfavorable opinions of the target country; those who justify and have favorable opinion of the target country; those who do not believe suicide terrorism is justified and have unfavorable opinions of the target country; and finally those who do not justify suicide terrorism and have favorable opinions of the target country. We considered the share of people who do not justify suicide terrorism and have favorable opinions of the target country as a base and included the other three variables in the regression. Table 3.8 shows the results, which confirm our finding about the robust positive relationship between the share of people who both justify suicide terrorism and have unfavorable opinions of the target country and the number of terrorist attacks from the source country against the target country. We find that the increase of this critical share of people by one standard deviation increases attacks by 266%.

---

<sup>14</sup>The results do not change if we cluster by source country.



## 3.5 Robustness checks

In order to check for robustness, we test different statistical models of the effect of public opinion (justification of suicide attacks and unfavorable opinion of target countries) on the occurrence of terrorism. First, we control for the regions - Asia, Africa and the Middle East - and find no difference in our findings. We also control for the U.S. and the E.U. as the most common targets in our data set. We find that once we control for the U.S. and the E.U., civil liberties do not play a role in the prediction of targets of attacks (Table 3.4). We also check whether the fact that a country has a large dominant neighbor has any influence on the occurrence of terrorism. We construct a variable *Big Neighbors* and find no significant effect.<sup>15</sup> Also considering whether a country where terrorism originates is a former colony (Derin-Gure, 2009) shows no significant effect; in addition, the coefficient of the interaction term increases. To obtain our results, we relied on the negative binomial estimation technique and relaxed the assumption that the variance is equal to the mean. However, we get similar results when we apply the Poisson estimation with robust standard errors; in addition, the significance level of the interaction term becomes stronger below the 0.05 level. Furthermore, we compare different estimations in Table 3.5 and get the same results. When we include the Pakistan-India cell, the coefficient (standard error) of justification of suicide bombing is 5.328 (1.539) below 0.01 significance level, and the coefficient of unfavorable opinion is 1.90 (0.976) below 0.1 significance level in Model (1). In Model (2) the coefficient (standard error) of the interaction term is 7.70 (4.648) ( $p < 0.10$ ). Similarly to earlier studies (Krueger and Malečková, 2009; Derin-Gure, 2009), we also use binary outcome as dependent variable and test our models using logit estimation instead of number of attacks. We assign 0 if attacks did not happen and 1 if attacks occurred between the pairs of countries. We find that the coefficient (standard error) of the interaction term in Model (2) is 16.83 (9.14) and  $p > |z| = 0.06$ .

## 3.6 Conclusion

Our research confirms the relevance of public opinion for terrorism. It also suggests that public opinion should be explored separately across its different dimensions. We focused on opinions towards regional powers and justification of suicide terrorism. Based on

---

<sup>15</sup>(Population X/Population Y)\* Dummy for the same region.

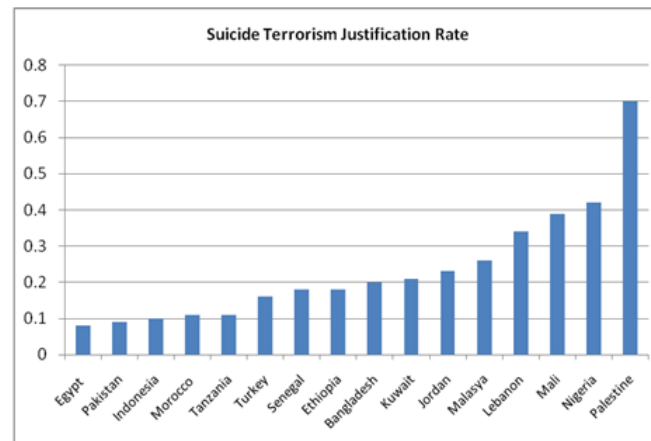
research on Anti-Americanism, it would be useful to explore the relationship between further dimensions of public opinion, such as attitudes towards values (e.g. democracy) and attitudes toward more specific expressions of foreign policy (e.g. in the Middle East), and their effects on the occurrence of terrorism. Confirming earlier studies, our results show a large variation on both dimensions across the 16 countries. From the perspective of security policy, this means that there is no single simple remedy applicable across countries. Our study shows that justification of suicide terrorism and unfavorable opinions of regional powers are truly distinct dimensions of public opinion, with separate sources of variation. The sources of justification of suicide terrorism (or terrorism more generally) and unfavorable opinions of regional powers are not well understood. Earlier studies of public opinion (Tessler and Robbins, 2007; Krueger and Mačková, 2009; Chiozza, 2006) have suggested that the aspect of attitudes to a country relevant for the support of terrorism and/or occurrence of terrorism concern the foreign policy of that country. Our results are in line with these findings. However, more research on the sources of justification of terrorism is needed. We found a positive relationship between justification of suicide bombing in a country and the number of incidents originating from that country, as well as between unfavorable opinion in the source country towards the target country and terrorist attacks from the source country against the target country. This confirms the finding of the previous study with Alan Krueger on the positive relationship between public opinion and the occurrence of terrorism. However, our study suggests that what matters is that both dimensions of public opinion are present: the intersection between justification of suicide terrorism and unfavorable opinion of regional powers is correlated with the occurrence of terrorism. The effect of justification of suicide terrorism on the occurrence of terrorism is proportional to unfavorable opinion (and conversely, the effect of unfavorable opinion is proportional to justification of suicide terrorism). This means that countries where justification of suicide terrorism is high will not necessarily be the source of a higher number of attacks if unfavorable opinions of the target country in the source country are low. In addition, we find that it is not sufficient for unfavorable attitudes towards regional powers and justification of suicide bombing to be spread among various groups in a country. It is important that the same group of people in a country both holds negative views of a potential enemy (regional power) and believes that suicide terrorism is a justifiable means of struggle. This finding, and the particular share of the population who hold these negative views, deserve more attention in future research in order to find out more about how these attitudes translate into action. Is it the material support and

legitimization that affect the intensity of terrorist incidents, or does this group present the actual pool of potential recruits? If our findings hold, they have relevant implications for security policy. Our main finding suggests that it is useful to watch for cases where both unfavorable opinion of a country and justification of (suicide) terrorism are high, as these may be warning signals that terrorism originating from the former country and targeted against the latter country may arise. Moreover, if justification of suicide terrorism in a certain community is high and difficult to affect, efforts could focus on influencing opinion about the country or countries that are the targets of terrorist attacks originating from the society in question. An improvement in attitudes regarding these countries should lead to a decrease in the number of attacks. Conversely, when suicide terrorism and other forms of extreme violence are successfully discredited as a means of solving grievances (Craigin and Gerwehr, 2005), the number of attacks against a country may decrease even if opinions of the country remain negative.

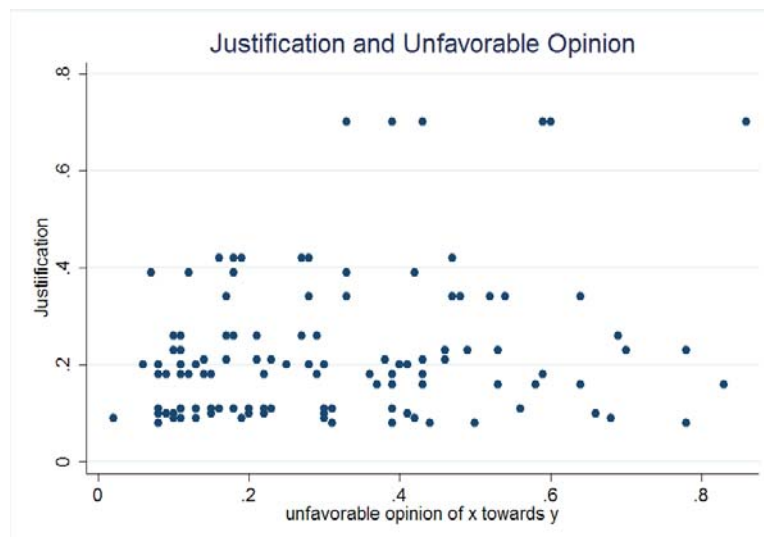
### 3.A Data Sources

- The PEW Global Attitudes Project, Rising Environmental Concern in 47-Nation Survey, Global Unease with Major World Powers. [www.pewglobal.org/datasets/](http://www.pewglobal.org/datasets/)
- Data on Terrorist Incidents are available at National Counterterrorism Center, The Worldwide Incidents Tracking System. [www.wits.nctc.gov](http://www.wits.nctc.gov)
- GDP per capita is calculated average from 2002 to 2006. World Bank datasets, WDI World Development Indicators. [www.worldbank.org](http://www.worldbank.org)
- Population in Millions. World Bank datasets, WDI World Development Indicators. [www.worldbank.org](http://www.worldbank.org)
- Civil Rights. Freedom House, 1 to 7 inverse scale. [www.freedomhouse.org](http://www.freedomhouse.org)
- Muslim percentage in country. CIA The World Factbook. [www.cia.gov](http://www.cia.gov)

## 3.B Graphs

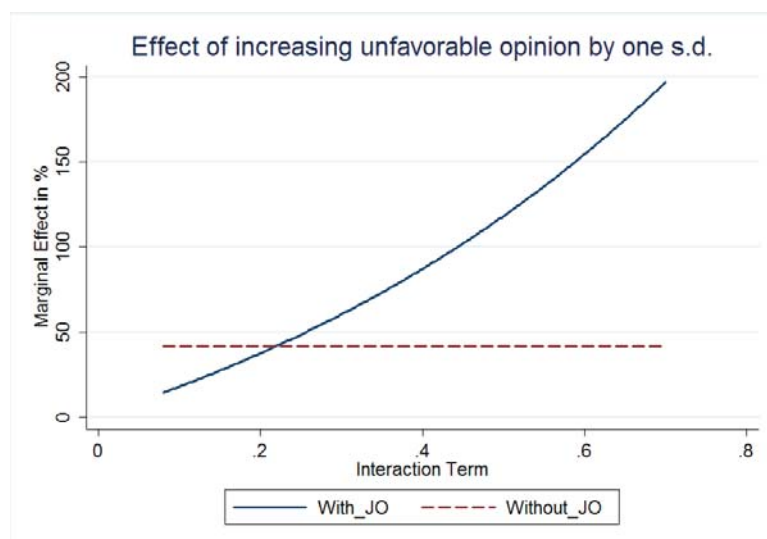


**Figure 3.1:** Justification Across Source Countries



**Figure 3.2:** Justification and Unfavorable Opinion of X towards Y





**Figure 3.5:** The Effect of Increasing Unfavorable Opinion by One Standard Deviation





---

## Bibliography

- Abadie, A. (2006). Poverty, political freedom, and the roots of terrorism. *American Economic Review*, 96(2):50–56.
- Abadie, A. and Gardeazabal, J. (2003). The economic costs of conflict: A case study of the basque country. *American economic review*, pages 113–132.
- Abadie, A. and Gardeazabal, J. (2008). Terrorism and the world economy. *European Economic Review*, 52(1):1–27.
- Alfaro, L., Kalemli-Ozcan, S., and Sayek, S. (2009). FDI, productivity and financial development. *The World Economy*, 32(1):111–135.
- Alfaro, L., Kalemli-Ozcan, S., and Volosovych, V. (2007). Capital flows in a globalized world: The role of policies and institutions. pages 19–72.
- Alomar, M. and El-Sakka, M. (2011). The impact of terrorism on the fdi inflows to less developed countries: A panel study. *European Journal of Economics, Finance and Administrative Sciences*, 28:116–125.
- Alonso, R. (2006). Individual motivations for joining terrorist organizations: a comparative qualitative study on members of eta and ira. *Tangled Roots: Social and Psychological Factors in the Genesis of Terrorism*, 11:187.
- Asiedu, E., Jin, Y., and Nandwa, B. (2009). Does foreign aid mitigate the adverse effect of expropriation risk on foreign direct investment? *Journal of International Economics*, 78(2):268 – 275.
- Backer, G. and Murphy, K. (2001). Prosperity will rise out of the ashes. *Wall Street Journal*, Oct 29.
- Bellak, C., Leibrecht, M., and Riedl, A. (2008). Labour costs and fdi flows into central and eastern european countries: A survey of the literature and empirical evidence. *Structural Change and Economic Dynamics*, 19(1):17–37.
- Bellany, I. (2007). Terrorism: Facts from figures 1. *Defence and Peace Economics*, 18(2):101–112.
- Berrebi, C. and Klor, E. F. (2006). On terrorism and electoral outcomes theory and evidence from the israeli-palestinian conflict. *Journal of Conflict Resolution*, 50(6):899–925.

- Blomberg, S. B., Hess, G. D., and Orphanides, A. (2004). The macroeconomic consequences of terrorism. *Journal of Monetary Economics*, 51(5):1007–1032.
- Busse, M. and Hefeker, C. (2007). Political risk, institutions and foreign direct investment. *European Journal of Political Economy*, 23(2):397–415.
- Charles, A. and Darné, O. (2006). Large shocks and the september 11th terrorist attacks on international stock markets. *Economic Modelling*, 23(4):683–698.
- Chen, A. H. and Siems, T. F. (2004). The effects of terrorism on global capital markets. *European Journal of Political Economy*, 20(2):349–366.
- Chinn, M. and Ito, H. (2008a). A new measure of financial openness. *Journal of Comparative Policy Analysis*, 10.
- Chinn, M. and Ito, H. (2008b). A new measure of financial openness. *Journal of Comparative Policy Analysis*, 10:309 – 322.
- Chiozza, G. (2007). Disaggregating anti-americanism: an analysis of individual attitudes toward the united states. *Anti-Americanisms in world politics*, pages 93–126.
- Chunlai, C. (1997). The evolution and main features of china’s foreign direct investment policies. *University of Adelaide, Chinese Economies Research Centre, Chinese Economies Research Centre (CERC) Working Papers*(1997-15).
- Cragin, K. and Gerwehr, S. (2005). *Dissuading Terror: Strategic Influence and the Struggle Against Terrorism*, volume 186. Rand Corporation.
- De Sousa, J., Mirza, D., and Verdier, T. (2010). Terrorism networks and trade: Does the neighbor hurt?
- Derin-Güre, P. (2009). Does terrorism have economic roots? Technical report, Boston University-Department of Economics.
- Drakos, K. (2009). Big questions, little answers: Terrorism activity, investor sentiment and stock returns. *Economics of Security Working Paper Series*, 8.
- Driffield, N. and Love, J. H. (2007). Linking FDI motivation and host economy productivity effects: conceptual and empirical analysis. *Journal of International Business Studies*, 38(3):460–473.
- Duce, M. (2003). Definitions of foreign direct investment (fdi): A methodological note. *Banco de Espana*.
- Eckstein, Z. and Tsiddon, D. (2004). Macroeconomic consequences of terror: theory and the case of israel. *Journal of Monetary Economics*, 51(5):971–1002.
- Edwards, S. (1992). Capital flows, foreign direct investment, and debt-equity swaps in developing countries.
- Egger, P. and Pfaffermayr, M. (2004). Distance, trade and fdi: a hausman–taylor sur approach. *Journal of Applied Econometrics*, 19(2):227–246.
- Egger, P. and Winner, H. (2003). Does contract risk impede foreign direct investment? *Swiss Journal of Economics and Statistics (SJES)*, 139(II):155–172.
- Enders, W., Sachsida, A., and Sandler, T. (2006). The impact of transnational terrorism on us foreign direct investment. *Political Research Quarterly*, 59(4):517–531.

- Enders, W. and Sandler, T. (1996). Terrorism and foreign direct investment in Spain and Greece. *Kyklos*, 49(3):331–352.
- Enders, W. and Sandler, T. (2011). *The political economy of terrorism*. Cambridge University Press.
- Fair, C. C. and Shepherd, B. (2006). Who supports terrorism? evidence from fourteen muslim countries. *Studies in Conflict & Terrorism*, 29:51–74.
- Filer, R. and Stanišić, D. (2012). The effect of terrorist incidents on capital flows. *CESifo Working Paper No.3998*.
- Frey, B. S., Luechinger, S., and Stutzer, A. (2007). Calculating tragedy: Assessing the costs of terrorism. *Journal of Economic Surveys*, 21(1):1–24.
- Gurr, T. R. (1990). Terrorism in democracies: Its social and political bases. *Origins of Terrorism: Psychologies, Ideologies, Theologies, States of Mind*, Washington, DC: Woodrow Wilson International Center for Scholars, 86:102.
- Haggard, S. and Tiede, L. (2011). The rule of law and economic growth: Where are we? *World Development*, 39(5):673 – 685.
- Hallward-Driemeier, M. (2003). Do bilateral investment treaties attract foreign direct investment? only a bit-and they could bite.
- Hartman, D. G. (1985). Tax policy and foreign direct investment. *Journal of Public economics*, 26(1):107–121.
- Hassan, N. (2006). Suicide terrorism. *The roots of terrorism in L. Richardson (Ed.), The Roots of Terrorism.*, 1:29–42.
- Janicki, H. P. and Wunnava, P. V. (2004). Determinants of foreign direct investment: empirical evidence from EU accession candidates. *Applied Economics*, 36(5):505–509.
- Katzenstein, P. J. (2007). The political consequences of anti-americanism. *Anti-Americanisms in world politics*, pages 273–3050.
- Katzenstein, P. J. and Keohane, R. O. (2007). *Anti-Americanisms in world politics*. Comstock Publishing Associates.
- Kaufmann, D., Kraay, A., and Mastruzzi, M. (2009). Governance matters viii: aggregate and individual governance indicators, 1996–2008. *World bank policy research working paper*, (4978).
- Keefer, P. and Loayza, N. (2008). *Terrorism, Economic Development, and Political Openness*. Cambridge University Press Cambridge, UK.
- Krueger, A. B. (2008). *What makes a terrorist: economics and the roots of terrorism (New Edition)*. Princeton University Press.
- Krueger, A. B. and Laitin, D. D. (2008). Kto kogo?: A cross-country study of the origins and targets of terrorism. *Terrorism, economic development, and political openness*, pages 148–173.
- Krueger, A. B. and Maleckova, J. (2003). Education, poverty and terrorism: Is there a causal connection? *The Journal of Economic Perspectives*, 17(4):119–144.

- Krueger, A. B. and Malečková, J. (2009). Attitudes and action: Public opinion and the occurrence of international terrorism. *Science*, 325(5947):1534–1536.
- LaFree, G. (2010). The global terrorism database: Accomplishments and challenges. *Perspectives on Terrorism*, 4.
- Lee, B.-C. and Powell, J. G. (1999). Valuation of foreign direct investment in the presence of political risk. *Faculty of Commerce-Economics Working Papers*, page 11.
- Li, Q. and Schaub, D. (2004). Economic globalization and transnational terrorism a pooled time-series analysis. *Journal of Conflict Resolution*, 48(2):230–258.
- Llussá, F. and Tavares, J. (2011). Which terror at which cost? on the economic consequences of terrorist attacks. *Economics Letters*, 110(1):52–55.
- Maleckova, J. (2006). Terrorists and the societies from which they come. *Tangled Roots: Social and Psychological Factors in the Genesis of Terrorism*, 11:147.
- Mayer, T. and Zignago, S. (2011). Notes on cepii’s distances measures: The geodist database.
- Mickolus, E., Sandler, T., Murdock, J., and Fleming, P. (2011). International terrorism: Attributes of terrorist events 1988-91 and 1991 - 2010 (iterate 4,5). *Dunn Loring, VA: Vineyard Software*.
- Pessoa, A. (2005). MNCs, FDI and host country productivity: A theoretical and empirical appraisal. *The IUP Journal of Managerial Economics*, 6(4):25–66.
- Qin, J. (2000). Exchange rate risk and two-way foreign direct investment. *International Journal of Finance and Economics*, 5(3):221–231.
- Qouta, S., Celinska, B., Abu-Safieh, R., Adelman, J., and Stem, N. (2006). Sympathy for terrorism: Possible interaction between social, emotional, and neuroendocrine risk factors. *Tangled roots: Social and psychological factors in the genesis of terrorism*, 11:227.
- Razin, A., Rubinstein, Y., and Sadka, E. (2004). Fixed costs and FDI: the conflicting effects of productivity shocks.
- Romer, P. (1993). Idea gaps and object gaps in economic development. *Journal of monetary economics*, 32(3):543–573.
- Rose, A. K. (2002). Do we really know that the wto increases trade? *NBER Working Paper No. 9273*.
- Schneider, F. and Bruno, F. S. (1985). Economic and political determinants of foreign direct investment. *World Development*, 13:161–175.
- Sin, C.-Y. and Leung, W.-F. (2001). Impacts of fdi liberalization on investment inflows. *Applied Economics Letters*, 8(4):253–256.
- Tessler, M. and Robbins, M. D. (2007). What leads some ordinary arab men and women to approve of terrorist acts against the united states? *Journal of Conflict Resolution*, 51(2):305–328.
- Thomas, M. A. (2009). What do the worldwide governance indicators measure? *European Journal of Development Research*, 22(1):31–54.

- Tung, S. and Cho, S. (2000). The impact of tax incentives on foreign direct investment in china. *Journal of International Accounting, Auditing and Taxation*, 9(2):105–135.
- Victoroff, J. I. (2006). *Tangled roots: social and psychological factors in the genesis of terrorism*, volume 11. IOS Press.
- Wei, S.-J. (2000). How taxing is corruption on international investors? *Review of economics and statistics*, 82(1):1–11.
- Wheeler, D. and Mody, A. (1992). International investment location decisions: The case of u.s. firms. *Journal of International Economics*, 33:57–76.
- Zodrow, G. R. (2006). Capital mobility and source-based taxation of capital income in small open economies. *International Tax and Public Finance*, 13(2-3):269–294.

### 3.3 Tables

## Chapter 1 TABLES

Table 1.1. Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
<i>Capital Flow variables</i>					
External Debt	2668	3.1814	7.1867	0	78.7345
Portfolio Investments	3165	0.4190	3.3004	-5.5193	75.5732
FDI	3926	2.6697	5.7611	-65.4109	92.1040
<i>Country variables</i>					
Log GDP per capita	4023	7.5235	1.5663	4.1309	11.0527
Log Population (mil)	4504	1.6379	1.9744	-3.2156	7.1671
Financial Openness	3725	0.0172	1.5414	-1.8081	2.5408
Natural Disasters	4402	1.7799	4.2738	0	83
<i>Terrorism variables</i>					
Incidents	4504	1.2031	6.3778	0	167.0771
Incidents previous 5 y.a.	3609	1.1988	4.8410	0	107.8235
Fatalities	4504	5.4843	40.2551	0	1139.9650
Fatalities 5 y.a.	3609	5.4971	30.4917	0	576.1153
<i>Spill over variables</i>					
Official Language	4504	36.1017	53.2133	0	360.4344
Minority Language	4504	42.8955	59.5318	0	401.0222
Border	4504	3.1724	11.6129	0	231.6836
Common Colonizer	4504	16.8149	32.6746	0	181.7338
Colony '45	4504	1.2233	5.3371	0	141.5415
Main Religion	4504	40.5248	76.3422	0	333.9374
Second Religion	4504	557.9299	3291.8190	0	72180.9500
Same Region and Minority Religion	4504	9.2256	27.0529	0	226.4319
Border and Majority Religion	4504	1.9236	10.2108	0	231.6836

Note: Terrorism variables (Incidents; Incidents 5 y.a.; Fatalities; Fatalities 5 y.a.) are normalized with the country's population in millions. Spill-over variables are all normalized by the country's population in millions. External Debt, Portfolio Investment and Foreign Direct Investment (FDI) are in millions of US dollars.

Table 1.2. Correlation table between Capital Flows, Terrorism and Natural Disasters

Variables	External Debt	Portfolio Investment	FDI	Incidents	Incidents 5 y.a.	Fatalities	Fatalities 5 y.a.	Natural Disasters
External Debt	1							
Portfolio Investment	0.0317	1						
FDI	0.131	0.1659***	1					
Incidents	-0.0372	-0.0202	-0.0806***	1				
Incidents 5 y.a.	-0.0364	-0.0019	-0.0656***	0.73***	1			
Fatalities	-0.0617	-0.0265	-0.0494***	0.751***	0.5325***	1		
Fatalities 5 y.a.	-0.0364	-0.0019	-0.0656***	0.73***	1	0.5325***	1	
Natural Disasters	0.0769**	0.1138	-0.0154**	-0.0325*	-0.0364*	-0.0381	-0.0364*	1



Table 1.3. Fixed effects Estimation of Capital Flows and Terrorism (1980-2008)

VARIABLES	(1) FDI	(2) FDI	(3) External Debt	(4) External Debt	(5) Portfolio Investment	(6) Portfolio Investment
Log GDP per capita	3.907*** (0.6650)	3.914*** (0.6650)	2.383*** (0.6470)	2.365*** (0.6480)	3.454*** (0.5720)	3.481*** (0.5730)
Log Population	4.095** (1.7130)	4.234** (1.7180)	-9.663*** (1.8250)	-9.529*** (1.8380)	-2.990** (1.2590)	-3.016** (1.2630)
Financial Openness Index	-0.0036 (0.1340)	-0.00556 (0.1340)	0.0384 (0.1270)	0.0345 (0.1270)	0.243*** (0.0943)	0.242** (0.0943)
<i>Terrorism Variables</i>						
Incidents	-0.0534* (0.0309)	-0.0762** (0.0387)	-0.0221 (0.0307)	-0.0257 (0.0419)	0.00467 (0.0209)	0.00242 (0.0254)
Incidents 5 y.a.	-0.00986 (0.0315)	-0.0326 (0.0499)	-0.0345 (0.0289)	-0.0691 (0.0489)	0.0257 (0.0205)	0.0434 (0.0321)
Fatalities		0.0053 (0.0066)		-0.00106 (0.0063)		0.0017 (0.0043)
Fatalities 5 y.a.		0.00388 (0.0074)		0.00615 (0.0070)		-0.0036 (0.0049)
Constant	-34.11*** (6.1550)	-34.39*** (6.1620)	3.468 (5.7920)	3.393 (5.8040)	-19.89*** (5.7540)	-20.06*** (5.7620)
Observations	2,832	2,832	2,066	2,066	2,345	2,345
R-squared	0.075	0.076	0.081	0.082	0.052	0.052
Number of countries	169	169	120	120	162	162

Note: Terrorism variables (Incidents; Incidents 5 y.a.; Fatalities; Fatalities 5 y.a.) are normalized by the country's population in millions. Country and year fixed effects are included in all specifications, and standard errors are reported in parentheses; \*, \*\*, and \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

Table 1.4. Fixed effects Estimation of FDI and Terrorism (1980-2008)

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	FDI	FDI	FDI	FDI	FDI	FDI
Log GDP per capita		3.545*** (0.6480)	3.907*** (0.6650)	3.926*** (0.6650)	3.914*** (0.6650)	4.094*** (0.6840)
Log Population			4.095** (1.7130)	4.070** (1.7170)	4.234** (1.7180)	4.200** (1.7170)
Financial Openness Index		-0.042 (0.1330)	-0.0036 (0.1340)	0.022 (0.1330)	-0.00556 (0.1340)	0.0141 (0.1330)
<i>Terrorism Variables</i>						
Incidents	-0.0631** (0.0302)	-0.0547* (0.0310)	-0.0534* (0.0309)		-0.0762** (0.0387)	-0.0739* (0.0385)
Incidents 5 y.a.	-0.00879 (0.0301)	-0.0104 (0.0315)	-0.00986 (0.0315)		-0.0326 (0.0499)	-0.0308 (0.0497)
Fatalities				-0.00211 (0.0055)	0.0053 (0.0066)	0.00498 (0.0066)
Fatalities 5 y.a.				-0.00317 (0.0044)	0.00388 (0.0074)	0.00376 (0.0074)
Natural Disasters						-0.0745* (0.0416)
Constant	1.130*** (0.4380)	-24.92*** (4.8090)	-34.11*** (6.1550)	-34.28*** (6.1650)	-34.39*** (6.1620)	-35.66*** (6.2590)
Observations	3,258	2,832	2,832	2,832	2,832	2,779
R-squared	0.072	0.073	0.075	0.074	0.076	0.076
Number of countries	180	169	169	169	169	165

Note: Terrorism variables (Incidents; Incidents 5 y.a.; Fatalities; Fatalities 5 y.a.) are normalized by the country's population in millions. Country and year fixed effects are included in all specifications, and standard errors are reported in parentheses; \*, \*\*, and \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

Table 1.5. Fixed effects Estimation of FDI, Terrorism, and Terrorism Spill-over (1980-2008)

VARIABLES	(1) FDI	(2) FDI	(3) FDI	(4) FDI	(5) FDI
Log GDP per capita	3.957*** (0.6680)	3.910*** (0.6650)	3.754*** (0.6660)	3.744*** (0.6660)	3.825*** (0.6700)
Log Population	4.228** (1.7360)	4.186** (1.7180)	4.691*** (1.7300)	4.937*** (1.7450)	5.238*** (1.7950)
Financial Openness Index	0.00941 (0.1360)	-0.00333 (0.1340)	-0.0206 (0.1360)	-0.00347 (0.1370)	0.00201 (0.1380)
<i>Terrorism Variables</i>					
Incidents	-0.0563* (0.0311)	-0.0524* (0.0310)	-0.0822** (0.0339)	-0.0814** (0.0339)	-0.0852** (0.0343)
Incidents 5 y.a.	-0.0104 (0.0316)	-0.00926 (0.0315)	-0.0112 (0.0317)	-0.0107 (0.0317)	-0.011 (0.0317)
<i>Spill-Over Variables</i>					
Official Language	0.00544 (0.0070)				0.00772 (0.0076)
Minority Language	-0.00586 (0.0066)				-0.00693 (0.0067)
Border	0.0113 (0.0158)				0.0197 (0.0259)
Common Colonizer		0.00598 (0.0050)			0.00547 (0.0056)
Colony '45		-0.00362 (0.0243)			-0.00589 (0.0245)
Main Religion			-0.00838** (0.0034)	-0.0109** (0.0043)	-0.0108** (0.0044)
Second Religion			0.000112** (0.0001)	0.000100* (0.0001)	0.000107* (0.0001)
Same Region and Minority Religion				0.00671 (0.0100)	0.00556 (0.0104)
Border and Majority Religion				0.0154 (0.0209)	-0.00491 (0.0340)
Constant	-35.27*** (6.4290)	-34.85*** (6.3720)	-34.57*** (6.3630)	-34.94*** (6.3730)	-36.06*** (6.4800)
Observations	2,832	2,832	2,832	2,832	2,832
R-squared	0.076	0.076	0.078	0.079	0.08
Number of countries	169	169	169	169	169

Note: Terrorism variables (Incidents; Incidents 5 y.a.; Fatalities; Fatalities 5 y.a.) and spill-over variables are normalized by the country's population in millions. Country and year fixed effects are included in all specifications, and standard errors are reported in parentheses; \*, \*\*, and \*\*\* denote significance at the 10%, 5%, and 1% level, respectively.

## Chapter 2 TABLES

Table 2. 1. Summary Statistics

Variables	Obs	Mean	Std. Dev.	Min	Max
<i>Dependent Variables</i>					
FDI (ij)	7080	91.4139	175.1614	-8.8876	993
FDI (ij)/ GDP (i)	7080	0.0017	0.0049	-0.0062	0.0868
FDI (ij)/ FDI (j)	7080	0.0392	0.6011	-35.1308	34.7841
<i>Control Variables</i>					
FDI Stock (i, t-1)	17862	26981.63	56207.42	6.9528	491052
GDP per capita receiver (i)	18160	3657.2040	4883.3660	112.5174	43783.11
GDP per capita sender (j)	18345	0.0333	0.0161	0.0097	0.1182
Log population receiver (i)	18344	16.6235	1.7308	12.0333	21.0159
Log population sender (j)	18345	16.3975	1.4844	12.9206	19.5500
Educational gap (i,j)	15778	1.5360	0.5503	0.6625	4.1244
KAOPEN receiver (i)	17817	0.2536	1.4235	-1.8556	2.4557
KAOPEN sender (j)	17488	2.2390	0.6445	-1.1593	2.4557
Log distance (ij)	18345	8.7642	0.7382	5.6009	9.8497
GDP 5 yr growth rate (i)	18093	3.1729	2.0436	-4.3010	7.0758
Share pop tertiary edu* (i)	12555	25.3885	15.8427	0.4903	78.3649
<i>Terrorism Variables</i>					
Domestic attacks (i, t-1)	18344	19.8686	61.3131	0	645
International attacks (i, t-1)	18293	0.9074	4.3719	0	105
Pair attacks (i,j,t)	18345	0.0212	0.2845	0	22
Pair attacks (i,j,t-1)	14564	0.0275	0.3202	0	22
US attacks (i, t-1)	18345	0.2496	1.0856	0	22
UK attacks (i, t-1)	18345	0.0143	0.1539	0	3
<i>World Governance Indicators in FDI receiving countries</i>					
Political Stability **	17156	-0.4360	0.7814	-2.7049	1.4178
Regulatory Quality	17133	-0.1496	0.6604	-2.3450	2.2256
Control of Corruption	17133	-0.4096	0.6641	-1.7262	2.3911
Voice and Accountability	17156	-0.3046	0.6781	-2.2180	1.2245
Rule of Law	17133	-0.3761	0.6432	-1.6549	1.7629
Government Effectiveness	17133	-0.2280	0.6301	-1.6724	2.3740
<b>(IHS) Overall Risk</b>	<b>12012</b>	<b>2.9308</b>	<b>0.5576</b>	<b>1.27</b>	<b>4</b>

Note: (i) - denotes FDI receiving country and source country of terrorism, (j) - denotes FDI sending country and target country of terrorism. (\*) full name of the variable is "Share of population with tertiary level of education"; (\*\*) full name of the variable is "Political Stability and Absence of Violence/Terrorism". See Table A1 for complete definitions and sources of variables. GDP and FDI variables are in millions of US dollars. The variable "FDI Stock (i, t-1)" stands for total FDI stock in FDI receiving country, including the stocks of investment from any other investors besides the 23 in this study.

Table 2.2. Number of receiver- sender attacks and FDI by pairs of countries and list of the top receiving countries by number of pair attacks from the period of 1995 to 2010.

Top 5 pairs by attacks over 16 years			Top 5 pairs by FDI over 16 years			Top countries by attacks (1995-2010)					
Pair	FDI	Attacks	Pair	FDI	Attacks	FDI receivers	Attacks	% of total	FDI senders	Attacks	% of total
USA - Pakistan	5662.376	53	USA-Mexico	157084	2	Pakistan	68	17.48	United States	211	54.24
USA- Saudi Arabia	17320	29	Japan-China	61922.2	0	Algeria	51	13.11	France	43	11.05
USA-Nigeria	679.867	29	USA-Brazil	59890.7	2	Nigeria	41	10.54	Germany	25	6.43
France-Algeria	344.001	24	USA-China	57991.2	0	Saudi Arabia	33	8.48	Italy	17	4.37
USA-Philippines	5172.02	14	Cyprus -Russia	48921	0	Colombia	31	7.97	Netherlands	16	4.11
Average	5835.653	29.8	Average	77161.9	0.8	Egypt	28	7.20	Canada	14	3.60

Note: FDI is in millions of current USD. Attacks are country pair attacks that are perpetrated from the nationalities of FDI receiving countries against targets of FDI sending countries.

Table 2.3. The share of FDI flow in receivers' GDP by sender - receiver pairs and receivers ordered by average GDP from 1995 to 2010.

FDI receivers																			

Table 2.3 (continued). The share of FDI flow in receivers' GDP by sender - receiver pairs and receivers ordered by average GDP from 1995 to 2010.

FDI receivers																		
	El Salvador	Azerbaijan	Costa Rica	Bulgaria	Oman	Dominican Republic	Tunisia	Ecuador	Croatia	Kazakhstan	Morocco	Bangladesh	Peru	Romania	Algeria	Nigeria	Pakistan	Chile
Australia	0.00	0.00	0.00	0.01	0.00	0.00	0.03	0.01	0.00	0.00	0.00	0.08	0.00	0.01	0.00	0.00	0.03	0.19
Austria	0.00	0.00	0.00	1.18	0.00	0.00	0.09	0.03	1.04	0.02	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.02
Belgium	0.00	0.00	0.00	0.58	0.00	0.00	0.03	0.00	0.08	0.04	0.12	0.00	0.04	0.07	0.02	0.00	0.00	0.08
Canada	0.08	0.00	0.25	0.02	0.08	0.70	0.11	0.45	0.00	0.39	0.00	0.00	0.04	0.04	0.01	0.00	0.00	0.59
Cyprus	0.00	0.02	0.00	0.66	0.00	0.00	0.01	0.00	0.03	0.03	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
Denmark	0.00	0.00	0.01	0.11	0.00	0.02	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.00	0.00
Finland	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.07
France	0.30	0.15	0.02	0.28	0.07	0.24	0.35	0.06	0.07	0.36	0.66	0.02	0.09	0.44	0.17	0.00	0.00	0.13
Germany	0.04	0.10	0.10	0.69	0.05	0.04	0.08	0.04	0.77	0.14	0.10	0.01	0.01	0.50	0.06	0.00	0.03	0.06
Greece	0.00	0.00	0.00	0.90	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00
Ireland	0.00	0.04	0.00	0.26	0.00	0.00	0.00	0.00	0.03	0.13	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Italy	0.12	0.02	0.04	0.48	0.00	0.05	0.37	0.11	0.26	0.66	0.05	0.00	0.04	0.43	0.07	0.00	0.00	0.18
Japan	0.01	0.08	0.00	0.04	0.05	0.00	0.04	0.01	0.00	0.17	0.02	0.05	0.02	0.01	0.02	0.00	0.03	0.15
Luxembourg	0.00	0.00	0.00	0.59	0.00	0.00	0.02	0.00	0.30	0.01	0.03	0.00	0.01	0.08	0.00	0.00	0.01	0.01
Netherlands	0.03	0.12	0.19	1.17	0.14	0.25	0.09	0.05	0.29	0.69	0.10	0.07	0.15	0.59	0.03	0.00	0.09	0.23
New Zealand	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Norway	0.00	0.05	0.00	0.02	0.00	0.00	0.02	0.00	0.02	0.04	0.00	0.06	0.00	0.01	0.00	0.00	0.08	0.04
Portugal	0.00	0.00	0.00	0.01	0.00	0.00	0.21	0.00	0.00	0.01	0.14	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Spain	0.15	0.00	0.09	0.29	0.00	0.72	0.12	0.11	0.01	0.01	0.34	0.00	0.16	0.09	0.10	0.00	0.00	0.51
Sweden	0.00	0.00	0.03	0.06	0.01	0.00	0.09	0.01	0.10	0.01	0.09	0.01	0.00	0.02	0.01	0.00	0.00	0.03
Switzerland	0.01	0.06	0.08	0.38	0.00	0.06	0.03	0.03	0.11	0.13	0.10	0.02	0.02	0.24	0.00	0.00	0.07	0.12
United Kingdom	0.01	0.36	0.03	0.53	1.01	0.19	0.63	0.05	0.10	1.03	0.11	0.19	0.39	0.14	0.04	0.90	0.18	0.40
United States	1.10	0.49	2.39	0.57	1.26	1.09	0.26	1.04	0.70	1.89	0.16	0.14	0.27	0.09	0.43	0.53	0.27	0.52
Average	0.08	0.06	0.14	0.38	0.12	0.14	0.11	0.09	0.17	0.25	0.09	0.03	0.05	0.16	0.04	0.06	0.03	0.15
Total FDI	2662	2231	8899	29151	3480	14273	12559	6328	17879	14271	13446	4732	11598	13501	2040	1892	12912	36702

Table 2.3 (continued). The share of FDI flow in receivers' GDP by sender - receiver pairs and receivers ordered by average GDP from 1995 to 2010.

FDI receivers																	
	Egypt	Philippines	Singapore	Malaysia	Colombia	Venezuela	Thailand	Argentina	Saudi Arabia	Turkey	Indonesia	Russian Federation	Mexico	India	Brazil	China	Grand Total
Australia	0.00	0.01	0.00	0.05	0.00	0.00	0.02	0.03	0.01	0.00	0.07	0.00	0.00	0.00	0.05	0.03	9.25
Austria	0.00	0.00	0.03	0.01	0.00	0.00	0.01	0.09	0.00	0.03	0.00	0.04	0.00	0.00	0.01	0.00	5.94
Belgium	0.00	0.00	0.11	0.05	0.00	0.00	0.03	0.07	0.01	0.03	0.00	0.02	0.01	0.00	0.04	0.00	1.67
Canada	0.00	0.00	0.54	0.06	0.08	0.03	0.01	0.11	0.01	0.01	0.00	0.00	0.07	0.00	0.05	0.03	7.84
Cyprus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.19	0.00	0.02	0.00	0.00	2.61
Denmark	0.00	0.01	0.02	0.07	0.01	0.00	0.01	0.02	0.00	0.01	0.00	0.01	0.02	0.00	0.01	0.00	0.52
Finland	0.00	0.00	0.07	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.00	0.04	0.01	0.00	0.01	0.00	0.45
France	0.10	0.02	0.14	0.03	0.04	0.16	0.06	0.12	0.01	0.06	0.06	0.03	0.03	0.01	0.12	0.04	7.32
Germany	0.02	0.02	0.17	0.25	0.03	0.07	0.10	0.12	0.03	0.07	0.08	0.14	0.07	0.02	0.07	0.05	6.38
Greece	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	2.76
Ireland	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	1.45
Italy	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.11	0.06	0.04	0.00	0.02	0.01	0.01	0.04	0.02	5.35
Japan	0.00	0.31	0.49	0.54	0.01	0.06	0.43	0.04	0.00	0.01	0.17	0.03	0.04	0.02	0.04	0.00	4.22
Luxembourg	0.00	0.01	0.00	0.01	0.02	0.00	0.01	0.17	0.00	0.05	0.06	0.02	0.01	0.00	0.06	0.00	2.11
Netherlands	0.17	0.07	0.32	0.17	0.11	0.08	0.20	0.17	0.06	0.08	0.19	0.21	0.14	0.03	0.09	0.04	9.47
New Zealand	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73
Norway	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.96
Portugal	0.04	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.06	0.00	0.60
Spain	0.10	0.00	0.00	0.00	0.23	0.21	0.01	0.18	0.10	0.04	0.00	0.02	0.05	0.01	0.06	0.01	5.27
Sweden	0.00	0.00	0.18	0.01	0.01	0.00	0.02	0.03	0.03	0.00	0.01	0.04	0.03	0.01	0.03	0.01	1.09
Switzerland	0.01	0.01	0.04	0.16	0.03	0.00	0.06	0.13	0.03	0.02	0.00	0.03	0.03	0.01	0.04	0.02	3.33
United Kingdom	0.03	0.07	0.19	0.30	0.08	0.16	0.12	0.15	0.05	0.05	0.05	0.07	0.05	0.03	0.04	0.04	15.83
United States	0.24	0.25	0.52	0.56	0.34	0.51	0.30	0.32	0.03	0.05	0.05	0.10		0.07	0.00	0.00	31.52
Average	0.03	0.03	0.12	0.10	0.04	0.06	0.06	0.08	0.02	0.03	0.03	0.05	0.03	0.01	0.04	0.01	
Total FDI	1624	12162	17431	25841	15539	14481	24371	35905	13864	25619	11456	27690	38841	21437	54274	52025	



Table 2.4. FDI receivers ordered by the highest total number of domestic (left column) and international (right column) attacks in period from 1995 to 2010.

	FDI receivers	# of domestic attacks	FDI receivers	# of international attacks
1	Pakistan	65835	Colombia	4487
2	India	64196	Pakistan	2123
3	Colombia	45255	Nigeria	1605
4	Algeria	42895	Saudi Arabia	1042
5	Philippines	24358	Algeria	919
6	Thailand	23166	Egypt	919

Note: The data is from Global Terrorism Database (START). The distinction between domestic and international incidents of terrorist attacks is done based on the criteria created for this study only. If nationalities of perpetrators and victims were of same nationalities attacks are counted as domestic, if they were of different nationalities they were counted as international attacks. These numbers are for total of 16 years.

Table 2.5. Heckman Maximum Likelihood model of FDI flow and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects.

VARIABLES	(1) Dependent variable: FDI outflow from sender to receiver FDI flow Selection	(2) Baseline model specification (standard errors by country pairs) FDI flow Selection	(3) Standard errors clustered by FDI receivers FDI flow Selection	(4) Standard errors clustered by FDI senders FDI flow Selection
Log FDI stock*	0.633*** (0.088)	0.635*** (0.088)	0.635*** (0.166)	0.635*** (0.089)
Log GDP per capita receiver*	0.171 (0.122)	-0.146** (0.058)	-0.828*** (0.221)	-0.146*** (0.057)
Log GDP per capita sender*	-0.037 (0.078)	-0.034 (0.035)	-0.034 (0.069)	-0.034 (0.044)
Log Population receiver	0.250*** (0.085)	-0.751*** (0.085)	-0.751*** (0.169)	-0.751*** (0.064)
Log Population sender	0.877*** (0.056)	0.877*** (0.056)	0.877*** (0.067)	0.877*** (0.125)
Educational gap	-0.015 (0.160)	-0.011 (0.160)	-0.011 (0.345)	-0.0114 (0.209)
KAOPEN receiver	0.117** (0.047)	0.117** (0.047)	0.117 (0.071)	0.117*** (0.041)
Log Distance	-0.985*** (0.093)	-0.984*** (0.092)	-0.984*** (0.187)	-0.984*** (0.169)
Common language	0.683*** (0.227)	0.684*** (0.227)	0.684** (0.266)	0.684* (0.391)
Domestic attacks*	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001* (0.001)
International attacks*	-0.006 (0.006)	-0.006 (0.006)	-0.006 (0.008)	-0.006 (0.005)
Pair attacks	-0.001 (0.186)	-0.002 (0.187)	-0.001 (0.154)	-0.002 (0.108)
Pair attacks*	-0.431** (0.176)	-0.427** (0.175)	-0.427*** (0.131)	-0.427*** (0.203)
KAOPEN sender	0.143** (0.060)	0.143** (0.060)	0.143*** (0.055)	0.143 (0.137)
FDI dummy*	0.925*** (0.039)	0.925*** (0.039)	0.925*** (0.112)	0.925*** (0.059)
rho	0.135(0.038)	0.167 (0.037)	0.167 (0.050)	0.167 (0.043)
sigma	2.131 (0.045)	2.136 (0.047)	2.136 (0.075)	2.136 (0.095)
lambda	0.289 (0.082)	0.356 (0.082)	0.356 (0.112)	0.356 (0.100)
Constant	-15.68*** (2.064)	-1.866 (2.065)	-1.866 (3.870)	-1.866 (2.682)
Observations	11,596	11,596	11,596	11,596

Note: In column (1) dependent variable is  $\log(FDI(i,j,t))$ , and in columns (2) to (4) the dependent variable is  $\log(FDI(i,j,t)/GDP(i,t))$ . In the column "Selection" dependent variable is a dummy variable that equals 1 if country pair is observed. Variable names with (\*) are one year lagged. Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 2.6. Heckman Maximum Likelihood model of FDI flow and terrorist incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effect.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	FDI flow Selection	FDI flow Selection	FDI flow Selection	In 5 to 90 percentile FDI flow Selection	Three year averages FDI flow Selection	w/o United States FDI flow Selection	w/o Pakistan FDI flow Selection
Log FDI stock*	0.591*** (0.0857)	0.678*** (0.0991)	0.599*** (0.088)	0.604*** (0.087)	0.841*** (0.077)	0.658*** (0.0919)	0.633*** (0.0883)
Log GDP per capita receiver*	-0.826*** (0.120)	-1.082*** (0.130)	-0.794*** (0.123)	-0.738*** (0.118)	-0.993*** (0.096)	-0.846*** (0.126)	-0.813*** (0.122)
Log GDP per capita sender*	-0.0379 (0.0772)	-0.00445 (0.0850)	-0.0341 (0.078)	-0.040 (0.078)	0.308*** (0.180)	-0.0233 (0.0822)	-0.0333 (0.0791)
Log Population receiver	-0.684*** (0.0850)	-0.736*** (0.0912)	-0.685*** (0.089)	-0.663*** (0.0830)	-1.058*** (0.066)	-0.749*** (0.0900)	-0.745*** (0.0862)
Log Population sender	-0.0283 (0.0850)	-0.174*** (0.0466)	-0.033 (0.043)	-0.007 (0.041)	-0.166*** (0.051)	-0.0256 (0.0417)	-0.0219 (0.0413)
Educational gap	0.872*** (0.0549)	0.882*** (0.0592)	0.878*** (0.056)	0.833*** (0.0558)	0.948*** (0.067)	0.806*** (0.0652)	0.882*** (0.0565)
KAOPEN receiver	-0.108 (0.154)	-0.194*** (0.0689)	-0.207*** (0.165)	-0.201*** (0.160)	-0.364*** (0.133)	-0.218*** (0.178)	-0.199*** (0.166)
Log Distance	0.131*** (0.0477)	0.116*** (0.0537)	0.137*** (0.048)	0.111*** (0.0465)	-0.077*** (0.035)	0.118*** (0.0496)	0.112*** (0.0474)
Common language	-0.940*** (0.0911)	-0.263*** (0.0456)	-0.259*** (0.0962)	-0.226*** (0.0865)	-0.306*** (0.067)	-0.240*** (0.0935)	-0.253*** (0.0921)
Domestic attacks*	0.774*** (0.214)	0.787*** (0.269)	0.706*** (0.224)	0.667*** (0.226)	-0.193 (0.244)	0.739*** (0.253)	0.660*** (0.233)
International attacks*	-0.0001 (0.001)	-0.002** (0.00101)	-0.001 (0.001)	-0.00121 (0.0008)	-0.003*** (0.001)	-0.00156* (0.000889)	-0.0023** (0.00101)
Pair attacks	0.00509 (0.006)	0.009** (0.006)	0.008** (0.006)	0.00495 (0.00636)	0.011** (0.005)	-0.00444 (0.007)	-0.00426 (0.006)
Pair attacks*	0.0457 (0.186)	0.0655 (0.179)	-0.006 (0.189)	0.0254 (0.186)	-0.947*** (0.305)	-0.206 (0.279)	-0.140 (0.174)
KAOPEN sender	-0.362*** (0.167)	-0.465*** (0.215)	-0.429*** (0.172)	-0.419*** (0.175)	-0.280 (0.507)	-0.471*** (0.185)	-0.460*** (0.215)
FDI dummy*	0.142*** (0.060)	0.0916 (0.0638)	0.143** (0.060)	0.149** (0.06)	0.287*** (0.094)	0.139** (0.0605)	0.145** (0.0609)
Armed conflict	0.922*** (0.04)	0.907*** (0.0436)	0.925*** (0.039)	0.921*** (0.039)	1.263*** (0.056)	0.910*** (0.0399)	0.944*** (0.0400)
Tertiary	-1.012*** (0.228)	0.022*** (0.00641)	-0.018* (0.01)	-0.018* (0.01)	0.016 (0.063)	0.181 (0.039)	0.183 (0.037)
Natural disasters	0.157 (0.037)	0.164 (0.038)	0.167 (0.037)	0.183 (0.037)	1.351 (0.027)	2.172 (0.049)	2.099 (0.049)
rho	2.115 (0.046)	2.122 (0.050)	2.134 (0.046)	2.099 (0.049)	0.021 (0.085)	0.394 (0.088)	0.385 (0.080)
sigma	0.332 (0.080)	0.349 (0.084)	0.357 (0.082)	0.385 (0.080)	3.100* (1.806)	0.694 (2.197)	0.694 (2.197)
lambda	-2.636 (2.060)	-1.098 (2.093)	-2.986 (2.163)	-4.112** (1.954)	-5.461*** (1.413)	-5.791*** (1.043)	-4.112** (1.954)
Constant	-5.676*** (1.004)	-3.397*** (1.070)	-5.568*** (1.031)	-6.120*** (1.008)	5.490 (5.490)	11.156 (11.156)	-6.120*** (11.353)
Observations	11,596	8,267	11,596	11,353	5,490	11,156	11,353

Note: In all specifications dependent variable in the "FDI flow" column is  $\text{Log}(\text{FDI}_{i,j,t}/\text{GDP}_{i,t})$ ; while in the column "Selection" dependent variable is a dummy variable that equals 1 if the country pair is in the sample. Variable names with (\*) are one year lagged. Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 2.7. Heckman Maximum Likelihood model of FDI flow and terrorist incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects.

VARIABLES	(1)		(2)		(2)	
	FDI share	Selection	w/o United States FDI share	Selection	w/o United Kingdom FDI share	Selection
Log FDI stock*	0.617*** (0.0865)	0.215*** (0.0443)	0.616*** (0.0911)	0.214*** (0.0456)	0.594*** (0.0924)	0.223*** (0.0456)
Log GDP per capita receiver*	0.226* (0.117)	-0.144** (0.0585)	0.243** (0.121)	-0.141** (0.0601)	0.288** (0.126)	-0.147** (0.0599)
Log GDP per capita sender*	0.0151 (0.0752)	-0.00548 (0.0355)	0.0337 (0.0787)	-0.00161 (0.0363)	-0.00589 (0.0792)	-0.00390 (0.0363)
Log Population receiver	0.292*** (0.0838)	-0.0220 (0.0410)	0.313*** (0.0886)	-0.0188 (0.0423)	0.310*** (0.0890)	-0.0247 (0.0420)
Log Population sender	-0.0384 (0.0557)	0.409*** (0.0261)	-0.0732 (0.0661)	0.411*** (0.0287)	-0.0660 (0.0572)	0.394*** (0.0264)
Educational gap	-0.159 (0.157)	-0.197*** (0.0689)	-0.125 (0.178)	-0.205*** (0.0713)	-0.0800 (0.166)	-0.180*** (0.0700)
KAOPEN receiver	0.0779* (0.0452)	0.00712 (0.0225)	0.0906* (0.0477)	-0.00277 (0.0227)	0.0939** (0.0475)	0.00247 (0.0230)
Log Distance	-0.891*** (0.0907)	-0.253*** (0.0456)	-0.892*** (0.0931)	-0.243*** (0.0461)	-0.917*** (0.0940)	-0.268*** (0.0463)
Common language	0.592*** (0.211)	0.332*** (0.117)	0.645*** (0.233)	0.373*** (0.123)	0.580*** (0.232)	0.323** (0.126)
Domestic attacks*	-0.00171** (0.000705)	1.96e-05 (0.000356)	-0.00186** (0.000739)	-1.78e-05 (0.000358)	-0.00175** (0.000748)	-0.000122 (0.000365)
International attacks*	-0.00446 (0.00567)	0.00777** (0.00388)	0.00146 (0.00598)	0.0107** (0.00442)	-0.00608 (0.00578)	0.00395 (0.00358)
Pair attacks	-0.116 (0.204)	0.0415 (0.0819)	-0.243 (0.255)	-0.0471 (0.0826)	-0.102 (0.212)	0.0584 (0.0849)
Pair attacks*	-0.331** (0.165)	-0.174** (0.0726)	-0.308* (0.183)	-0.147** (0.0732)	-0.336** (0.168)	-0.168** (0.0743)
KAOPEN sender		0.141** (0.0622)		0.138** (0.0623)		0.223*** (0.0456)
FDI dummy*		0.904*** (0.0395)		0.888*** (0.0399)		-0.147** (0.0599)
Attacks US*				-0.126** (0.0495)		
Attacks UK*					0.103 (0.201)	0.312*** (0.106)
rho		0.102(0.038)		0.115(0.039)		0.101 (0.041)
sigma		2.116(0.052)		2.154(0.054)		2.148 (0.054)
lambda		0.215(0.081)		0.247(0.086)		0.218 (0.087)
Constant	-7.686*** (1.977)	-5.778*** (1.008)	-7.510*** (2.105)	-5.932*** (1.057)	-7.798*** (2.079)	-5.443*** (1.023)
Observations	11,530	11,530	11,090	11,090	11,030	11,030

Note: In all specifications dependent variable in the "FDI share" column is  $\log(FDI_{i,j,t}/FDI_{j,t})$ ; while in the column "Selection" dependent variable is a dummy variable that equals 1 if the country pair is in the sample. Variable names with (\*) are one year lagged. Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 2.8. Heckman Maximum Likelihood estimation of FDI flow, Terrorist Incidents and World Governance Indicators from 1996 to 2008 between country pairs with standard errors clustered by country pairs and year effects.

VARIABLES	(1)		(2)		(3)	
	FDI flow	Selection	FDI flow	Selection	FDI flow	Selection
Log FDI stock*	0.535*** (0.0894)	0.211*** (0.0469)	0.579*** (0.0960)	0.159*** (0.0466)	0.596*** (0.0942)	0.182*** (0.0470)
Log GDP per capita receiver*	-0.876*** (0.122)	-0.143** (0.0590)	-0.867*** (0.125)	-0.167*** (0.0599)	-0.876*** (0.127)	-0.158*** (0.0600)
Log GDP per capita sender*	-0.0218 (0.0784)	-0.00251 (0.0368)	-0.0295 (0.0795)	-0.00535 (0.0368)	-0.0283 (0.0796)	-0.00405 (0.0368)
Log Population receiver	-0.593*** (0.0902)	-0.0181 (0.0454)	-0.698*** (0.0920)	0.0223 (0.0428)	-0.712*** (0.0907)	0.00412 (0.0431)
Log Population sender	0.874*** (0.0555)	0.405*** (0.0265)	0.881*** (0.0564)	0.407*** (0.0266)	0.879*** (0.0570)	0.407*** (0.0265)
Educational gap	-0.0346 (0.161)	-0.192*** (0.0712)	-0.0127 (0.163)	-0.161** (0.0715)	-0.0660 (0.166)	-0.205*** (0.0707)
KAOPEN receiver	0.125*** (0.0483)	0.00445 (0.0227)	0.0893* (0.0493)	-0.0231 (0.0239)	0.113** (0.0482)	0.000899 (0.0228)
Log Distance	-0.955*** (0.0894)	-0.263*** (0.0460)	-1.005*** (0.0926)	-0.264*** (0.0457)	-1.009*** (0.0939)	-0.268*** (0.0461)
Common language	0.662*** (0.232)	0.318*** (0.120)	0.663*** (0.233)	0.276** (0.124)	0.647*** (0.234)	0.289** (0.122)
Domestic attacks*	0.000822 (0.000808)	0.000153 (0.000378)	-0.00158* (0.000837)	-0.000127 (0.000358)	-0.00136 (0.000844)	3.76e-05 (0.000361)
International attacks*	0.00362 (0.00574)	0.00744** (0.00366)	-0.00549 (0.00625)	0.00711* (0.00377)	-0.00514 (0.00627)	0.00728* (0.00378)
Pair attacks	0.0543 (0.192)	0.137 (0.0975)	0.0150 (0.189)	0.149 (0.0991)	0.0192 (0.190)	0.139 (0.0995)
Pair attacks*	-0.354** (0.176)	-0.137** (0.0646)	-0.400** (0.176)	-0.133** (0.0627)	-0.403** (0.175)	-0.140** (0.0654)
KAOPEN sender		0.136** (0.0621)		0.137** (0.0622)		0.136** (0.0620)
FDI dummy*		0.923*** (0.0401)		0.904*** (0.0400)		0.918*** (0.0402)
Political Stability	0.595*** (0.117)	0.0301 (0.0586)				
Regulatory Quality			0.310** (0.154)	0.272*** (0.0697)		
Control of Corruption					0.211* (0.128)	0.129** (0.0623)
rho	0.172(0.037)		0.180(0.036)		0.174(0.037)	
sigma	2.125(0.047)		2.143(0.048)		2.142(0.047)	
lambda	0.366(0.082)		0.386(0.081)		0.373(0.083)	
Constant	-3.526* (2.006)	-5.477*** (1.037)	-2.180 (2.012)	-5.651*** (1.017)	-1.827 (2.050)	-5.437*** (1.016)
Observations	11,021	11,021	11,021	11,021	11,021	11,021

Note: In all specifications dependent variable in the "FDI flow" column is  $\text{Log}(\text{FDI}(i,j,t)/\text{GDP}(i,t))$ ; while in the column "Selection" dependent variable is a dummy variable that equals 1 if the country pair is in the sample. Variable names with (\*) are one year lagged. Robust standard errors in parentheses \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 2.9. Heckman Maximum Likelihood estimation of FDI flow, Terrorist Incidents and World Governance Indicators from 1996 to 2008 between country pairs with standard errors clustered by country pairs and year effects.

VARIABLES	(1)		(2)		(3)		(4)	
	FDI flow	Selection	FDI flow	Selection	FDI flow	Selection	FDI flow	Selection
Log FDI stock*	0.686*** (0.0868)	0.253*** (0.0445)	0.642*** (0.0910)	0.209*** (0.0459)	0.623*** (0.0959)	0.178*** (0.0471)	0.638*** (0.116)	0.224*** (0.0581)
Log GDP per capita receiver*	-0.939*** (0.121)	-0.215*** (0.0593)	-0.851*** (0.127)	-0.148*** (0.0605)	-0.853*** (0.125)	-0.154*** (0.0596)	-0.925*** (0.135)	-0.217*** (0.0680)
Log GDP per capita sender*	-0.0190 (0.0800)	-0.00127 (0.0371)	-0.0278 (0.0796)	-0.00308 (0.0368)	-0.0287 (0.0795)	-0.00473 (0.0368)	-0.0611 (0.0885)	-0.000605 (0.0438)
Log Population receiver	-0.760*** (0.0849)	-0.0344 (0.0416)	-0.757*** (0.0878)	-0.0206 (0.0419)	-0.744*** (0.0910)	0.00186 (0.0424)	-0.736*** (0.110)	0.00221 (0.0537)
Log Population sender	0.885*** (0.0558)	0.411*** (0.0266)	0.874*** (0.0573)	0.405*** (0.0265)	0.876*** (0.0571)	0.406*** (0.0265)	0.848*** (0.0590)	0.421*** (0.0284)
Educational gap	-0.00947 (0.162)	-0.164** (0.0717)	-0.0401 (0.167)	-0.199*** (0.0714)	-0.0386 (0.165)	-0.198*** (0.0708)	-0.0472 (0.189)	-0.0943 (0.0834)
KAOPEN receiver	0.0760 (0.0490)	-0.0180 (0.0233)	0.111** (0.0480)	0.00220 (0.0229)	0.111** (0.0481)	-0.000298 (0.0227)	0.142*** (0.0525)	0.00815 (0.0257)
Log Distance	-1.049*** (0.0909)	-0.306*** (0.0470)	-0.994*** (0.0927)	-0.262*** (0.0462)	-0.996*** (0.0928)	-0.264*** (0.0459)	-1.050*** (0.0942)	-0.303*** (0.0484)
Common language	0.643*** (0.231)	0.267** (0.121)	0.668*** (0.234)	0.310** (0.121)	0.660*** (0.234)	0.286** (0.122)	0.732*** (0.245)	0.264** (0.129)
Domestic attacks*	-0.00149* (0.000845)	-0.000167 (0.000368)	-0.00139* (0.000847)	5.70e-05 (0.000361)	-0.00143* (0.000841)	1.92e-06 (0.000359)	-0.00349** (0.00143)	-0.00118* (0.000642)
International attacks*	-0.00280 (0.00607)	0.0110*** (0.00413)	-0.00545 (0.00624)	0.00726* (0.00377)	-0.00545 (0.00624)	0.00749** (0.00379)	-0.00242 (0.00569)	0.00767** (0.00353)
Pair attacks	0.0631 (0.176)	0.179* (0.104)	0.0113 (0.194)	0.135 (0.0983)	0.0152 (0.191)	0.142 (0.0989)	0.0661 (0.172)	0.203 (0.131)
Pair attacks*	-0.366** (0.183)	-0.111* (0.0593)	-0.397** (0.176)	-0.140** (0.0654)	-0.395** (0.176)	-0.136** (0.0639)	-0.493** (0.213)	-0.132* (0.0673)
KAOPEN sender		0.133** (0.0620)		0.136** (0.0621)		0.137** (0.0619)		0.0896 (0.0668)
FDI dummy*		0.895*** (0.0396)		0.922*** (0.0401)		0.914*** (0.0400)		0.884*** (0.0433)
Voice and Accountability	0.410*** (0.0999)	0.287*** (0.0518)						
Rule of Law			0.0483 (0.133)	0.0422 (0.0622)				
Government Effectiveness					0.103 (0.138)	0.144** (0.0630)		
Overall Risk (IHS)							-0.162 (0.192)	-0.140 (0.0925)
rho	0.187(0.036)		0.173(0.037)		0.174(0.037)		0.151(0.040)	
sigma	2.138(0.048)		2.144(0.048)		2.144(0.048)		2.145(0.052)	
lambda	0.399(0.079)		0.370(0.083)		0.373(0.082)		0.323(0.088)	
Constant	-1.239 (1.991)	-4.701*** (1.022)	-1.902 (2.048)	-5.388*** (1.018)	-1.919 (2.043)	-5.445*** (1.016)	0.167 (2.212)	-4.850*** (1.119)
Observations	11,021	11,021	11,021	11,021	11,021	11,021	7,910	7,910

Note: In all specifications dependent variable in the "FDI flow" column is  $\text{Log}(\text{FDI}_{i,j,t})$ ; while in the column "Selection" dependent variable is a dummy variable that equals 1 if the country pair is in the sample. Variable names with (\*) are one year lagged. Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 2.10. Comparison of magnitudes terrorist incidents and World Governance Indicators on FDI flows between country pairs.

Variable	Mean (Standard Deviation)	Percentage change of FDI/GDP once variable increases for one standard deviation
Pair attacks (i,j,t-1)	0.027 (0.32)	11.328 %
Political Stability (i,t)	-0.436 (0.781)	46.470 %
Regulatory Quality (i,t)	-0.149 (0.66)	20.460 %
Control of Corruption (i,t)	-0.41 (0.664)	13.944 %
Voice and Accountability (i,t)	-0.305 (0.678)	27.730 %
Rule of Law (i,t)	-0.376 (0.643)	3.086 %
Government Efficiency (i,t)	-0.228 (0.63)	6.426 %

Table 1.B. Descriptions and Sources of Variables

Variables	Description
FDI (ij)	Foreign Direct Investment outflow from FDI sending to receiving country in millions of current US dollars. Source: UNCTAD ( <a href="http://unctadstat.unctad.org">www. http://unctadstat.unctad.org</a> )
FDI (ij)/ GDP (i)	Foreign Direct Investment outflow from FDI sending to receiving country in millions of current US dollars relative to FDI receiving country's' Gross Domestic Product in millions of current US dollars. Source: UNCTAD
FDI Stock (i, t-1)	Total Foreign Direct Investment in FDI receiving country in millions of current US dollars. Source: UNCTAD.
GDP per capita sender (j)	Log of Gross Domestic Product of FDI sending country. Source: World Development Indicators (WDI), World Bank ( <a href="http://data.worldbank.org/">http://data.worldbank.org/</a> )
GDP per capita receiver (i)	Log of Gross Domestic Product of FDI receiving country. Source: WDI, World Bank.
Population receiver and sender (i) and (j)	Population of FDI receiving and sending countries. Source: WDI, World Bank.
KAOPEN	The Chinn-Ito index ( <i>KAOPEN</i> ) is an index measuring a country's degree of capital account openness. The index was initially introduced in Chinn and Ito (2006) <a href="http://web.pdx.edu/~ito/Chinn-Ito_website.htm">http://web.pdx.edu/~ito/Chinn-Ito_website.htm</a>
Armed Conflict	Dummy variable equals 1 if in FDI receiving country was armed conflict in a given year. Source: PRIO ( <a href="http://www.prio.no/">http://www.prio.no/</a> )
Tertiary	Population share of those with tertiary level of education in FDI receiving country. Source: WDI, World Bank
Natural Disasters	Number of natural disasters in FDI receiving country in a given year. Source: International Disasters Database ( <a href="http://www.emdat.be/database">http://www.emdat.be/database</a> )
<b>Terrorism Variables</b>	
Domestic Attacks	Total number of domestic terrorist incidents occurred in the FDI host country. Source: Global Terrorism Database ( <a href="http://www.start.umd.edu/start/">http://www.start.umd.edu/start/</a> )
International Attacks	Total number of international terrorist incidents originated from FDI host country. Source: ITERATE
Pair Attacks	Number of terrorist incidents originated from FDI receiving country towards entities of FDI sending country in the year of observation. Source: ITERATE
<b>World Governance Indicators</b>	
Political Stability and Absence of Terrorism	Reflects perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.
Rule of Law	Reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
Government Effectiveness	Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
Control of Corruption	Reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.
Regulatory Quality	Reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
Voice and Accountability	Reflects perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.
	<i>Indexes are available from 1996-2010. Estimate of governance (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance). Source: World Development Indicators (<a href="http://info.worldbank.org/governance/wgi/sc_country.asp">http://info.worldbank.org/governance/wgi/sc_country.asp</a>)</i>
<b>IHS Global Insight Overall Risk</b>	Estimates political, social and asymmetric risk factors that affect key assets, supply chains and personnel in country. From 1999 to 2009. It has value from 1 to 5. Source: IHS <a href="http://www.ihs.com">http://www.ihs.com</a>

Note: For detailed description of the World Bank Development Indicators check: [http://info.worldbank.org/governance/wgi/sc\\_country.asp](http://info.worldbank.org/governance/wgi/sc_country.asp). In the Tables variable *Pol. Stability and Absence of Terrorism/Violence* is labeled as *Pol. Stability*



## Online Appendix Tables

Table O.1. Heckman Maximum Likelihood model of FDI/GDP and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part I

VARIABLES	(1)		(2)		(1)		(2)		(1)		(2)		(1)		(2)	
	w/o Australia	Selection	w/o Austria	Selection	w/o Belgium	Selection	w/o Canada	Selection	w/o Cyprus	Selection	w/o Denmark	Selection				
Log FDI stock*	0.595*** (0.0885)	0.208*** (0.0452)	0.648*** (0.0879)	0.200*** (0.0451)	0.623*** (0.0892)	0.208*** (0.0452)	0.609*** (0.0907)	0.205*** (0.0453)	0.627*** (0.0885)	0.222*** (0.0457)	0.647*** (0.0898)	0.223*** (0.0455)				
Log GDP per capita receiver*	-0.777*** (0.124)	-0.124** (0.0600)	-0.849*** (0.0921)	-0.133** (0.0597)	-0.833*** (0.124)	-0.143** (0.0598)	-0.787*** (0.127)	-0.120** (0.0592)	-0.790*** (0.123)	-0.132** (0.0591)	-0.846*** (0.125)	-0.156*** (0.0601)				
Log GDP per capita sender**	-0.0113 (0.0791)	0.00887 (0.0367)	-0.00921 (0.0794)	-3.44e-05 (0.0365)	-0.0277 (0.0795)	-0.0194 (0.0363)	-0.0558 (0.0804)	-0.00662 (0.0363)	-0.0597 (0.0778)	-0.0109 (0.0364)	-0.0403 (0.0784)	-0.0121 (0.0363)				
Log Population receiver	-0.726*** (0.0868)	-0.0156 (0.0416)	-0.762*** (0.0861)	-0.00856 (0.0418)	-0.751*** (0.0869)	-0.0182 (0.0419)	-0.727*** (0.0879)	-0.00881 (0.0417)	-0.745*** (0.0848)	-0.0155 (0.0423)	-0.778*** (0.0869)	-0.0334 (0.0419)				
Log Population sender	0.869*** (0.0568)	0.411*** (0.0261)	0.856*** (0.0567)	0.401*** (0.0262)	0.871*** (0.0569)	0.405*** (0.0261)	0.868*** (0.0562)	0.402*** (0.0261)	0.893*** (0.0563)	0.448*** (0.0279)	0.869*** (0.0584)	0.412*** (0.0269)				
Educational gap	-0.0531 (0.163)	-0.188*** (0.0710)	-0.00802 (0.161)	-0.189*** (0.0703)	-0.0186 (0.161)	-0.181*** (0.0695)	0.0197 (0.159)	-0.209*** (0.0713)	0.0694 (0.161)	-0.184*** (0.0708)	0.0119 (0.161)	-0.198*** (0.0704)				
KAOPEN receiver	0.113** (0.0486)	0.00969 (0.0229)	0.122** (0.0478)	0.0167 (0.0229)	0.110** (0.0485)	0.0111 (0.0228)	0.119** (0.0498)	0.00361 (0.0229)	0.110** (0.0467)	0.00553 (0.0224)	0.117** (0.0479)	0.00996 (0.0230)				
Log Distance	-0.956*** (0.0945)	-0.237*** (0.0461)	-0.945*** (0.0932)	-0.245*** (0.0473)	-0.997*** (0.0946)	-0.258*** (0.0463)	-0.976*** (0.0947)	-0.241*** (0.0460)	-0.884*** (0.0894)	-0.207*** (0.0459)	-0.995*** (0.0945)	-0.261*** (0.0464)				
Common language	0.736*** (0.225)	0.377*** (0.124)	0.657*** (0.227)	0.323*** (0.118)	0.737*** (0.229)	0.335*** (0.119)	0.844*** (0.219)	0.404*** (0.124)	0.672*** (0.224)	0.376*** (0.121)	0.666*** (0.227)	0.338*** (0.118)				
Domestic attacks*	-0.00114 (0.000851)	-4.66e-05 (0.000367)	-0.00123 (0.000857)	-3.02e-05 (0.000367)	-0.00118 (0.000847)	-1.43e-05 (0.000364)	-0.00127 (0.000872)	3.58e-05 (0.000367)	-0.00163* (0.000845)	-9.73e-05 (0.000366)	-0.00133 (0.000859)	2.52e-05 (0.000365)				
International attacks*	-0.00541 (0.00629)	0.00868** (0.00400)	-0.00506 (0.00618)	0.00739* (0.00381)	-0.00487 (0.00620)	0.00915** (0.00420)	-0.00723 (0.00702)	0.00724* (0.00393)	-0.00596 (0.00627)	0.00888** (0.00404)	-0.00255 (0.00574)	0.00716* (0.00394)				
Pair attacks	-0.0296 (0.186)	0.0268 (0.0802)	-0.00259 (0.187)	0.0380 (0.0821)	-0.0203 (0.184)	0.0338 (0.0820)	-0.000420 (0.185)	0.0409 (0.0833)	-0.0326 (0.187)	0.0108 (0.0773)	-0.00973 (0.187)	0.0349 (0.0822)				
Pair attacks*	-0.422** (0.176)	-0.156** (0.0665)	-0.434** (0.176)	-0.149** (0.0673)	-0.448** (0.177)	-0.164** (0.0686)	-0.341* (0.205)	-0.192*** (0.0725)	-0.394** (0.174)	-0.152** (0.0654)	-0.388** (0.175)	-0.147** (0.0653)				
KAOPEN sender		0.121* (0.0657)		0.152** (0.0606)		0.141** (0.0600)		0.141** (0.0606)		0.450*** (0.0862)		0.137** (0.0602)				
FDI dummy*		0.930*** (0.0409)		0.919*** (0.0404)		0.924*** (0.0406)		0.915*** (0.0403)		0.954*** (0.0406)		0.920*** (0.0408)				
Constant	-2.333 (2.111)	-6.058*** (1.015)	-1.525 (2.098)	-5.894*** (1.031)	-1.443 (2.107)	-5.746*** (1.017)	-2.435 (2.144)	-6.075*** (1.024)	-3.469* (2.006)	-7.841*** (1.021)	-1.206 (2.105)	-5.557*** (1.024)				
Observations	11,034	11,034	11,055	11,055	11,068	11,068	11,084	11,084	11,009	11,009	11,033	11,033				

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table O.1. Heckman Maximum Likelihood model of FDI share and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part II

VARIABLES	(1) w/o Finland FDI Flow	(2) Selection	(1) w/o France FDI Flow	(2) Selection	(1) w/o Germany FDI Flow	(2) Selection	(1) w/o Greece FDI Flow	(2) Selection	(1) w/o Ireland FDI Flow	(2) Selection	(1) w/o Italy FDI Flow	(2) Selection
Log FDI stock*	0.625*** (0.0883)	0.215*** (0.0450)	0.636*** (0.0938)	0.225*** (0.0452)	0.621*** (0.0924)	0.230*** (0.0456)	0.657*** (0.0874)	0.229*** (0.0451)	0.634*** (0.0890)	0.216*** (0.0453)	0.629*** (0.0910)	0.228*** (0.0453)
Log GDP per capita receiver*	-0.833*** (0.122)	-0.152** (0.0595)	-0.835*** (0.128)	-0.158*** (0.0592)	-0.830*** (0.127)	-0.166*** (0.0597)	-0.835*** (0.121)	-0.155*** (0.0593)	-0.831*** (0.123)	-0.142** (0.0594)	-0.837*** (0.127)	-0.157*** (0.0598)
Log GDP per capita sender*	-0.0429 (0.0790)	-0.00503 (0.0362)	-0.0635 (0.0831)	-0.00810 (0.0366)	-0.0541 (0.0829)	-0.0147 (0.0360)	-0.0346 (0.0777)	-0.00331 (0.0365)	-0.0392 (0.0795)	-0.00251 (0.0362)	-0.0520 (0.0813)	-0.00776 (0.0366)
Log Population receiver	-0.750*** (0.0863)	-0.0275 (0.0417)	-0.759*** (0.0904)	-0.0307 (0.0419)	-0.758*** (0.0902)	-0.0339 (0.0420)	-0.747*** (0.0836)	-0.0313 (0.0416)	-0.745*** (0.0866)	-0.0240 (0.0420)	-0.725*** (0.0880)	-0.0313 (0.0418)
Log Population sender	0.857*** (0.0569)	0.389*** (0.0265)	0.877*** (0.0574)	0.396*** (0.0268)	0.887*** (0.0582)	0.396*** (0.0271)	0.855*** (0.0564)	0.412*** (0.0262)	0.867*** (0.0591)	0.400*** (0.0272)	0.915*** (0.0563)	0.412*** (0.0269)
Educational gap	-0.0352 (0.161)	-0.198*** (0.0700)	0.000687 (0.168)	-0.193*** (0.0697)	0.0237 (0.168)	-0.218*** (0.0705)	-0.0264 (0.159)	-0.211*** (0.0699)	0.00556 (0.162)	-0.174** (0.0710)	-0.0761 (0.162)	-0.197*** (0.0702)
KAOPEN receiver	0.115** (0.0478)	0.00830 (0.0228)	0.117** (0.0497)	0.00343 (0.0229)	0.126** (0.0493)	0.000812 (0.0229)	0.102** (0.0472)	0.00998 (0.0226)	0.118** (0.0482)	0.0124 (0.0229)	0.132*** (0.0488)	0.00777 (0.0230)
Log Distance	-0.984*** (0.0934)	-0.262*** (0.0464)	-1.000*** (0.0974)	-0.266*** (0.0463)	-0.986*** (0.0970)	-0.265*** (0.0464)	-0.953*** (0.0940)	-0.269*** (0.0468)	-0.986*** (0.0937)	-0.251*** (0.0462)	-1.033*** (0.100)	-0.268*** (0.0473)
Common language	0.666*** (0.228)	0.315*** (0.117)	0.677*** (0.244)	0.311*** (0.119)	0.651*** (0.229)	0.355*** (0.118)	0.649*** (0.228)	0.297** (0.119)	0.753*** (0.231)	0.374*** (0.127)	0.635*** (0.228)	0.321*** (0.118)
Domestic attacks*	-0.00117 (0.000840)	1.89e-05 (0.000366)	-0.00119 (0.000896)	-5.72e-05 (0.000365)	-0.00136 (0.000903)	-6.50e-05 (0.000365)	-0.00142* (0.000828)	5.06e-05 (0.000365)	-0.00147* (0.000864)	9.16e-06 (0.000364)	-0.00134 (0.000860)	8.56e-05 (0.000365)
International attacks*	-0.00706 (0.00672)	0.00819** (0.00407)	-0.00658 (0.00664)	0.00728* (0.00386)	-0.00612 (0.00663)	0.00783** (0.00389)	-0.00670 (0.00633)	0.00931** (0.00402)	-0.00726 (0.00667)	0.00703* (0.00388)	-0.00493 (0.00650)	0.00796** (0.00395)
Pair attacks	-0.000623 (0.183)	0.0427 (0.0824)	0.0241 (0.192)	0.174* (0.100)	0.0346 (0.197)	0.0538 (0.0907)	-0.00603 (0.188)	0.0316 (0.0813)	0.00918 (0.186)	0.0343 (0.0824)	-0.0101 (0.193)	0.0585 (0.0891)
Pair attacks*	-0.282* (0.167)	-0.180** (0.0755)	-0.494*** (0.180)	-0.135** (0.0615)	-0.451** (0.185)	-0.143** (0.0654)	-0.445** (0.176)	-0.155** (0.0661)	-0.422** (0.176)	-0.142** (0.0632)	-0.481*** (0.180)	-0.165** (0.0692)
KAOPEN sender		0.169*** (0.0606)		0.141** (0.0594)		0.143** (0.0594)		0.0660 (0.0579)		0.149** (0.0607)		0.142** (0.0604)
FDI dummy*		0.927*** (0.0401)		0.915*** (0.0404)		0.921*** (0.0402)		0.949*** (0.0402)		0.916*** (0.0405)		0.901*** (0.0404)
Constant	-1.398 (2.074)	-5.244*** (1.012)	-1.760 (2.159)	-5.310*** (1.015)	-1.947 (2.157)	-5.214*** (1.017)	-1.881 (2.061)	-5.340*** (0.999)	-1.755 (2.098)	-5.673*** (1.024)	-2.371 (2.150)	-5.534*** (1.023)
Observations	11,063	11,063	11,081	11,081	11,078	11,078	11,025	11,025	11,066	11,066	11,075	11,075

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table O.1. Heckman Maximum Likelihood model of FDI share and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part III

VARIABLES	(1) w/o Japan FDI Flow	(2) Selection	(1) w/o Luxembourg FDI Flow	(2) Selection	(1) w/o Netherlands FDI Flow	(2) Selection	(1) w/o Norway FDI Flow	(2) Selection	(1) w/o New Zealand FDI Flow	(2) Selection	(1) w/o Portugal FDI Flow	(2) Selection
Log FDI stock*	0.619*** (0.0879)	0.208*** (0.0455)	0.635*** (0.0877)	0.218*** (0.0443)	0.652*** (0.0904)	0.225*** (0.0454)	0.633*** (0.0882)	0.223*** (0.0454)	0.619*** (0.0880)	0.206*** (0.0452)	0.647*** (0.0886)	0.214*** (0.0454)
Log GDP per capita receiver*	-0.801*** (0.121)	-0.131** (0.0595)	-0.828*** (0.121)	-0.146** (0.0582)	-0.857*** (0.123)	-0.156*** (0.0596)	-0.811*** (0.123)	-0.160*** (0.0601)	-0.800*** (0.122)	-0.127** (0.0595)	-0.850*** (0.123)	-0.155*** (0.0592)
Log GDP per capita sender*	-0.0381 (0.0814)	-0.0208 (0.0363)	-0.0344 (0.0783)	-0.00445 (0.0355)	-0.0322 (0.0803)	0.00520 (0.0362)	-0.0267 (0.0791)	-0.0142 (0.0365)	-0.0305 (0.0780)	0.000600 (0.0360)	-0.0280 (0.0788)	0.00743 (0.0364)
Log Population receiver	-0.778*** (0.0859)	-0.0212 (0.0423)	-0.751*** (0.0852)	-0.0228 (0.0409)	-0.745*** (0.0874)	-0.0257 (0.0419)	-0.755*** (0.0855)	-0.0236 (0.0414)	-0.742*** (0.0853)	-0.0150 (0.0417)	-0.750*** (0.0858)	-0.0149 (0.0421)
Log Population sender	0.930*** (0.0578)	0.425*** (0.0280)	0.877*** (0.0560)	0.408*** (0.0261)	0.916*** (0.0570)	0.411*** (0.0263)	0.870*** (0.0580)	0.414*** (0.0269)	0.843*** (0.0570)	0.382*** (0.0270)	0.858*** (0.0561)	0.400*** (0.0261)
Educational gap	0.0527 (0.165)	-0.203*** (0.0711)	-0.0114 (0.160)	-0.201*** (0.0689)	-0.0746 (0.163)	-0.230*** (0.0704)	-0.0337 (0.159)	-0.229*** (0.0709)	0.0376 (0.161)	-0.155** (0.0707)	-0.130 (0.162)	-0.262*** (0.0709)
KAOPEN receiver	0.102** (0.0484)	0.00103 (0.0229)	0.117** (0.0474)	0.00738 (0.0223)	0.125*** (0.0481)	0.00477 (0.0227)	0.117** (0.0481)	0.0142 (0.0230)	0.120** (0.0477)	0.00706 (0.0228)	0.102** (0.0475)	0.0146 (0.0230)
Log Distance	-0.908*** (0.0958)	-0.247*** (0.0464)	-0.984*** (0.0925)	-0.252*** (0.0454)	-1.038*** (0.0934)	-0.260*** (0.0464)	-0.995*** (0.0935)	-0.252*** (0.0464)	-0.944*** (0.0927)	-0.218*** (0.0463)	-0.984*** (0.0931)	-0.243*** (0.0466)
Common language	0.563** (0.224)	0.315*** (0.119)	0.684*** (0.227)	0.335*** (0.118)	0.833*** (0.227)	0.383*** (0.118)	0.684*** (0.227)	0.354*** (0.118)	0.705*** (0.229)	0.369*** (0.127)	0.640*** (0.231)	0.323*** (0.118)
Domestic attacks*	-0.00147* (0.000881)	-8.92e-05 (0.000366)	-0.00136 (0.000839)	-1.05e-05 (0.000356)	-0.00188** (0.000808)	-7.42e-05 (0.000360)	-0.00112 (0.000836)	2.77e-05 (0.000361)	-0.00139* (0.000838)	2.27e-05 (0.000363)	-0.00132 (0.000844)	1.81e-05 (0.000364)
International attacks*	-0.00615 (0.00665)	0.00774* (0.00395)	-0.00589 (0.00633)	0.00775** (0.00386)	-0.00568 (0.00588)	0.00762* (0.00389)	-0.00645 (0.00666)	0.00679* (0.00386)	-0.00431 (0.00609)	0.00705* (0.00397)	-0.00575 (0.00646)	0.00727* (0.00393)
Pair attacks	-0.0466 (0.193)	0.0355 (0.0814)	-0.00156 (0.187)	0.0398 (0.0823)	0.0696 (0.188)	0.0498 (0.0850)	-0.00923 (0.189)	0.0412 (0.0814)	-0.0129 (0.187)	0.0422 (0.0816)	0.0230 (0.190)	0.0376 (0.0820)
Pair attacks*	-0.385** (0.175)	-0.163** (0.0708)	-0.427** (0.175)	-0.157** (0.0667)	-0.483*** (0.172)	-0.154** (0.0693)	-0.417** (0.206)	-0.195*** (0.0685)	-0.448** (0.175)	-0.159** (0.0663)	-0.446** (0.179)	-0.165** (0.0690)
KAOPEN sender		0.138** (0.0608)		0.143** (0.0604)		0.123** (0.0593)		0.137** (0.0608)		0.171*** (0.0621)		0.163*** (0.0608)
FDI dummy*		0.935*** (0.0402)		0.925*** (0.0395)		0.923*** (0.0405)		0.935*** (0.0406)		0.944*** (0.0402)		0.935*** (0.0403)
Constant	-3.107 (2.136)	-6.196*** (1.045)	-1.866 (2.065)	-5.747*** (1.000)	-2.130 (2.140)	-5.590*** (1.019)	-1.607 (2.089)	-5.775*** (1.029)	-1.893 (2.066)	-5.915*** (1.017)	-1.202 (2.086)	-5.602*** (1.023)
Observations	11,130	11,130	11,596	11,596	11,143	11,143	11,042	11,042	11,023	11,023	11,045	11,045

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table O.1. Heckman Maximum Likelihood model of FDI share and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part IV

VARIABLES	(1) w/o Spain FDI Flow	(2) Selection	(1) w/o Sweden FDI Flow	(2) Selection	(1) w/o Switzerland FDI Flow	(2) Selection	(1) w/o United Kingdom FDI Flow	(2) Selection	(1) w/o United States FDI Flow	(2) Selection
Log FDI stock*	0.650*** (0.0891)	0.219*** (0.0455)	0.631*** (0.0908)	0.208*** (0.0453)	0.689*** (0.0913)	0.238*** (0.0447)	0.612*** (0.0923)	0.223*** (0.0453)	0.658*** (0.0919)	0.221*** (0.0454)
Log GDP per capita receiver*	-0.870*** (0.124)	-0.152** (0.0603)	-0.843*** (0.124)	-0.141** (0.0590)	-0.882*** (0.125)	-0.163*** (0.0590)	-0.759*** (0.129)	-0.143** (0.0593)	-0.846*** (0.126)	-0.148** (0.0594)
Log GDP per capita sender*	-0.0492 (0.0812)	-0.00857 (0.0361)	-0.0125 (0.0804)	-0.00858 (0.0367)	0.0334 (0.0792)	0.0249 (0.0366)	-0.0521 (0.0826)	-0.00309 (0.0363)	-0.0233 (0.0822)	-0.00119 (0.0363)
Log Population receiver	-0.768*** (0.0867)	-0.0270 (0.0418)	-0.758*** (0.0884)	-0.0169 (0.0419)	-0.771*** (0.0884)	-0.0288 (0.0414)	-0.736*** (0.0895)	-0.0248 (0.0418)	-0.749*** (0.0900)	-0.0256 (0.0417)
Log Population sender	0.892*** (0.0556)	0.419*** (0.0266)	0.881*** (0.0584)	0.412*** (0.0263)	0.945*** (0.0587)	0.439*** (0.0265)	0.840*** (0.0574)	0.393*** (0.0264)	0.806*** (0.0652)	0.405*** (0.0286)
Educational gap	-0.0196 (0.163)	-0.191*** (0.0705)	-0.0342 (0.166)	-0.208*** (0.0714)	0.00832 (0.163)	-0.197*** (0.0705)	0.0959 (0.167)	-0.186*** (0.0700)	-0.0797 (0.178)	-0.218*** (0.0715)
KAOPEN receiver	0.101** (0.0491)	0.00451 (0.0231)	0.110** (0.0482)	0.0156 (0.0229)	0.128*** (0.0487)	0.00358 (0.0228)	0.132*** (0.0492)	0.000508 (0.0227)	0.118** (0.0496)	-0.00581 (0.0226)
Log Distance	-1.005*** (0.0948)	-0.257*** (0.0469)	-1.016*** (0.0953)	-0.253*** (0.0463)	-1.058*** (0.0961)	-0.263*** (0.0468)	-1.012*** (0.0956)	-0.266*** (0.0459)	-0.984*** (0.0935)	-0.240*** (0.0459)
Common language	0.337 (0.265)	0.150 (0.130)	0.679*** (0.229)	0.350*** (0.118)	0.789*** (0.234)	0.306*** (0.118)	0.661*** (0.253)	0.320*** (0.127)	0.739*** (0.253)	0.371*** (0.124)
Domestic attacks*	-0.00134 (0.000852)	0.000176 (0.000354)	-0.00126 (0.000875)	-1.74e-06 (0.000367)	-0.00162* (0.000833)	-9.37e-05 (0.000366)	-0.00131 (0.000889)	-4.42e-05 (0.000361)	-0.00156* (0.000889)	-6.31e-05 (0.000360)
International attacks*	-0.00913 (0.00656)	0.00772* (0.00394)	-0.00634 (0.00670)	0.00720* (0.00387)	-0.00535 (0.00653)	0.00739* (0.00395)	-0.00636 (0.00677)	0.00776** (0.00389)	-0.00444 (0.00670)	0.00811** (0.00394)
Pair attacks	0.0240 (0.202)	0.0338 (0.0811)	-0.00134 (0.186)	0.0415 (0.0828)	-0.0339 (0.190)	0.0310 (0.0815)	0.0166 (0.195)	0.0509 (0.0851)	-0.206 (0.279)	-0.0502 (0.0826)
Pair attacks*	-0.424** (0.178)	-0.113 (0.0736)	-0.382** (0.178)	-0.156** (0.0696)	-0.456** (0.180)	-0.157** (0.0694)	-0.426** (0.178)	-0.152** (0.0662)	-0.471** (0.185)	-0.154** (0.0659)
KAOPEN sender		0.140** (0.0605)		0.132** (0.0601)		0.105* (0.0603)		0.139** (0.0594)		0.139** (0.0605)
FDI dummy*		0.923*** (0.0408)		0.909*** (0.0404)		0.953*** (0.0400)		0.912*** (0.0403)		0.910*** (0.0399)
Constant	-1.393 (2.094)	-5.786*** (1.027)	-1.236 (2.112)	-5.865*** (1.020)	-1.854 (2.161)	-5.938*** (1.027)	-1.920 (2.159)	-5.440*** (1.014)	-0.694 (2.197)	-5.791*** (1.043)
Observations	11,083	11,083	11,037	11,037	11,090	11,090	11,096	11,096	11,156	11,156

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table O.2. Heckman Maximum Likelihood model of FDI/GDP and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part I

VARIABLES	(1)		(2)		(1)		(2)		(1)		(2)		(1)		(2)		(1)		(2)	
	w/o Algeria	FDI Flow	Selection	(2)	w/o Argentina	FDI Flow	Selection	(2)	w/o Armenia	FDI Flow	Selection	(2)	w/o Azerbaijan	FDI Flow	Selection	(2)	w/o Bangladesh	FDI Flow	Selection	(2)
Log FDI stock*	0.615*** (0.0886)	0.191*** (0.0447)	0.659*** (0.0888)	0.225*** (0.0447)	0.631*** (0.0897)	0.225*** (0.0452)	0.635*** (0.0877)	0.218*** (0.0443)	0.679*** (0.0884)	0.253*** (0.0451)	0.635*** (0.0877)	0.218*** (0.0443)	0.679*** (0.0884)	0.253*** (0.0451)	0.635*** (0.0877)	0.218*** (0.0443)	0.679*** (0.0884)	0.253*** (0.0451)	0.635*** (0.0877)	0.218*** (0.0443)
Log GDP per capita receiver*	-0.803*** (0.122)	-0.109* (0.0590)	-0.895*** (0.123)	-0.151** (0.0589)	-0.829*** (0.123)	-0.140** (0.0588)	-0.828*** (0.121)	-0.146** (0.0582)	-0.854*** (0.122)	-0.176*** (0.0584)	-0.828*** (0.121)	-0.146** (0.0582)	-0.854*** (0.122)	-0.176*** (0.0584)	-0.828*** (0.121)	-0.146** (0.0582)	-0.854*** (0.122)	-0.176*** (0.0584)	-0.828*** (0.121)	-0.146** (0.0582)
Log GDP per capita sender*	-0.0352 (0.0784)	-0.00351 (0.0359)	-0.0413 (0.0797)	-0.00849 (0.0360)	-0.0439 (0.0785)	-0.00732 (0.0359)	-0.044 (0.0783)	-0.00445 (0.0355)	-0.0435 (0.0781)	0.000298 (0.0363)	-0.0444 (0.0783)	-0.00445 (0.0355)	-0.0435 (0.0781)	0.000298 (0.0363)	-0.0444 (0.0783)	-0.00445 (0.0355)	-0.0435 (0.0781)	0.000298 (0.0363)	-0.0444 (0.0783)	-0.00445 (0.0355)
Log Population receiver	-0.736*** (0.0859)	-0.00462 (0.0414)	-0.770*** (0.0860)	-0.0254 (0.0413)	-0.751*** (0.0856)	-0.0258 (0.0413)	-0.751*** (0.0852)	-0.0228 (0.0409)	-0.791*** (0.0851)	-0.0554 (0.0414)	-0.751*** (0.0852)	-0.0228 (0.0409)	-0.791*** (0.0851)	-0.0554 (0.0414)	-0.751*** (0.0852)	-0.0228 (0.0409)	-0.791*** (0.0851)	-0.0554 (0.0414)	-0.751*** (0.0852)	-0.0228 (0.0409)
Log Population sender	0.875*** (0.0561)	0.410*** (0.0264)	0.871*** (0.0567)	0.403*** (0.0263)	0.882*** (0.0567)	0.410*** (0.0264)	0.877*** (0.0560)	0.408*** (0.0261)	0.884*** (0.0570)	0.409*** (0.0263)	0.877*** (0.0560)	0.408*** (0.0261)	0.884*** (0.0570)	0.409*** (0.0263)	0.877*** (0.0560)	0.408*** (0.0261)	0.884*** (0.0570)	0.409*** (0.0263)	0.877*** (0.0560)	0.408*** (0.0261)
Educational gap	-0.0210 (0.160)	-0.217*** (0.0693)	0.0476 (0.160)	-0.200*** (0.0692)	-0.0272 (0.163)	-0.187*** (0.0701)	-0.0114 (0.160)	-0.201*** (0.0689)	-0.0657 (0.164)	-0.257*** (0.0700)	-0.0114 (0.160)	-0.201*** (0.0689)	-0.0657 (0.164)	-0.257*** (0.0700)	-0.0114 (0.160)	-0.201*** (0.0689)	-0.0657 (0.164)	-0.257*** (0.0700)	-0.0114 (0.160)	-0.201*** (0.0689)
KAOPEN receiver	0.112** (0.0474)	-0.00583 (0.0223)	0.155*** (0.0487)	0.0147 (0.0229)	0.114** (0.0484)	-0.00131 (0.0224)	0.117** (0.0474)	0.00738 (0.0223)	0.116** (0.0475)	0.00390 (0.0224)	0.117** (0.0474)	0.00738 (0.0223)	0.116** (0.0475)	0.00390 (0.0224)	0.117** (0.0474)	0.00738 (0.0223)	0.116** (0.0475)	0.00390 (0.0224)	0.117** (0.0474)	0.00738 (0.0223)
Log Distance	-0.998*** (0.0935)	-0.273*** (0.0467)	-1.039*** (0.0942)	-0.249*** (0.0460)	-0.977*** (0.0937)	-0.235*** (0.0455)	-0.984*** (0.0925)	-0.252*** (0.0454)	-0.992*** (0.0931)	-0.259*** (0.0458)	-0.984*** (0.0925)	-0.252*** (0.0454)	-0.992*** (0.0931)	-0.259*** (0.0458)	-0.984*** (0.0925)	-0.252*** (0.0454)	-0.984*** (0.0925)	-0.259*** (0.0458)	-0.984*** (0.0925)	-0.252*** (0.0454)
Common language	0.713*** (0.230)	0.359*** (0.121)	0.687*** (0.230)	0.327*** (0.119)	0.679*** (0.227)	0.337*** (0.119)	0.684*** (0.227)	0.335*** (0.118)	0.711*** (0.227)	0.370*** (0.119)	0.684*** (0.227)	0.335*** (0.118)	0.711*** (0.227)	0.370*** (0.119)	0.684*** (0.227)	0.335*** (0.118)	0.711*** (0.227)	0.370*** (0.119)	0.684*** (0.227)	0.335*** (0.118)
Domestic attacks*	-0.00116 (0.000852)	0.000189 (0.000367)	-0.000999 (0.000832)	3.62e-05 (0.000355)	-0.00137 (0.000841)	-2.62e-05 (0.000356)	-0.00136 (0.000839)	-1.05e-05 (0.000356)	-0.00127 (0.000836)	7.95e-05 (0.000351)	-0.00136 (0.000839)	-1.05e-05 (0.000356)	-0.00127 (0.000836)	7.95e-05 (0.000351)	-0.00136 (0.000839)	-1.05e-05 (0.000356)	-0.00127 (0.000836)	7.95e-05 (0.000351)	-0.00136 (0.000839)	-1.05e-05 (0.000356)
International attacks*	-0.00678 (0.00630)	0.00695* (0.00381)	-0.00510 (0.00631)	0.00741* (0.00382)	-0.00585 (0.00631)	0.00772** (0.00388)	-0.00589 (0.00633)	0.00775** (0.00386)	-0.00547 (0.00629)	0.00870** (0.00397)	-0.00589 (0.00633)	0.00775** (0.00386)	-0.00547 (0.00629)	0.00870** (0.00397)	-0.00589 (0.00633)	0.00775** (0.00386)	-0.00547 (0.00629)	0.00870** (0.00397)	-0.00589 (0.00633)	0.00775** (0.00386)
Pair attacks	0.0287 (0.186)	0.230** (0.107)	-0.00181 (0.182)	0.0406 (0.0820)	-0.00235 (0.187)	0.0403 (0.0819)	-0.00156 (0.187)	0.0398 (0.0823)	0.0122 (0.190)	0.0546 (0.0870)	-0.00156 (0.187)	0.0398 (0.0823)	0.0122 (0.190)	0.0546 (0.0870)	-0.00156 (0.187)	0.0398 (0.0823)	0.0122 (0.190)	0.0546 (0.0870)	-0.00156 (0.187)	0.0398 (0.0823)
Pair attacks*	-0.408** (0.176)	-0.116** (0.0569)	-0.430** (0.175)	-0.158** (0.0669)	-0.427** (0.175)	-0.154** (0.0659)	-0.427** (0.175)	-0.157** (0.0667)	-0.409** (0.175)	-0.143** (0.135**)	-0.427** (0.175)	-0.157** (0.0667)	-0.409** (0.175)	-0.143** (0.135**)	-0.427** (0.175)	-0.157** (0.0667)	-0.409** (0.175)	-0.143** (0.135**)	-0.427** (0.175)	-0.157** (0.0667)
KAOPEN sender		0.140** (0.0602)		0.143** (0.0606)		0.169*** (0.0626)		0.143** (0.0604)		0.135** (0.0608)		0.143** (0.0604)		0.135** (0.0608)		0.143** (0.0604)		0.135** (0.0608)		0.143** (0.0604)
FDI dummy*		0.904*** (0.0397)		0.908*** (0.0398)		0.942*** (0.0400)		0.925*** (0.0395)		0.944*** (0.0403)		0.925*** (0.0395)		0.944*** (0.0403)		0.925*** (0.0395)		0.944*** (0.0403)		0.925*** (0.0395)
Constant	-1.986 (2.070)	-5.918*** (1.009)	-0.833 (2.085)	-5.682*** (1.010)	-1.992 (2.105)	-6.086*** (1.008)	-1.866 (2.065)	-5.747*** (1.000)	-1.205 (2.082)	-5.150*** (1.011)	-1.866 (2.065)	-5.747*** (1.000)	-1.205 (2.082)	-5.150*** (1.011)	-1.866 (2.065)	-5.747*** (1.000)	-1.205 (2.082)	-5.150*** (1.011)	-1.866 (2.065)	-5.747*** (1.000)
Observations	11,398	11,398	11,325	11,325	11,356	11,356	11,596	11,596	11,308	11,308	11,596	11,596	11,308	11,308	11,596	11,596	11,308	11,308	11,596	11,596

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table O.2. Heckman Maximum Likelihood model of FDI/GDP and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part II

VARIABLES	(1) w/o Bolivia FDI Flow	(2) Selection	(1) w/o Brazil FDI Flow	(2) Selection	(1) w/o Bulgaria FDI Flow	(2) Selection	(1) w/o Cambodia FDI Flow	(2) Selection	(1) w/o Chile FDI Flow	(2) Selection	(1) w/o Colombia FDI Flow	(2) Selection
Log FDI stock*	0.613*** (0.0871)	0.205*** (0.0444)	0.644*** (0.0885)	0.217*** (0.0444)	0.630*** (0.0886)	0.203*** (0.0443)	0.618*** (0.0898)	0.221*** (0.0456)	0.618*** (0.0898)	0.221*** (0.0456)	0.589*** (0.0868)	0.212*** (0.0448)
Log GDP per capita receiver*	-0.781*** (0.123)	-0.126** (0.0593)	-0.899*** (0.0885)	-0.149** (0.0588)	-0.810*** (0.127)	-0.122** (0.0598)	-0.802*** (0.125)	-0.150** (0.0605)	-0.802*** (0.125)	-0.150** (0.0605)	-0.760*** (0.120)	-0.154*** (0.0592)
Log GDP per capita sender*	-0.0320 (0.0800)	0.00485 (0.0360)	-0.0297 (0.0798)	-0.00551 (0.0362)	-0.0263 (0.0801)	-0.0141 (0.0359)	-0.0390 (0.0804)	-0.0151 (0.0360)	-0.0390 (0.0804)	-0.0151 (0.0360)	-0.0216 (0.0790)	0.000248 (0.0362)
Log Population receiver	-0.732*** (0.0852)	-0.0133 (0.0412)	-0.803*** (0.0866)	-0.0297 (0.0410)	-0.740*** (0.0861)	-0.00783 (0.0410)	-0.770*** (0.0910)	-0.0176 (0.0420)	-0.770*** (0.0910)	-0.0176 (0.0420)	-0.717*** (0.0851)	-0.00288 (0.0420)
Log Population sender	0.876*** (0.0564)	0.405*** (0.0265)	0.885*** (0.0570)	0.407*** (0.0264)	0.893*** (0.0569)	0.411*** (0.0267)	0.865*** (0.0572)	0.406*** (0.0264)	0.865*** (0.0572)	0.406*** (0.0264)	0.843*** (0.0567)	0.413*** (0.0263)
Educational gap	0.00557 (0.162)	-0.196*** (0.0697)	-0.0401 (0.159)	-0.194*** (0.0691)	-0.0482 (0.160)	-0.217*** (0.0696)	0.0133 (0.169)	-0.206*** (0.0715)	0.0133 (0.169)	-0.206*** (0.0715)	0.0980 (0.161)	-0.169** (0.0691)
KAOPEN receiver	0.104** (0.0472)	0.00248 (0.0224)	0.132*** (0.0478)	0.00654 (0.0226)	0.118** (0.0478)	0.0103 (0.0223)	0.116** (0.0476)	0.00710 (0.0224)	0.116** (0.0476)	0.00710 (0.0224)	0.114** (0.0471)	0.0266 (0.0223)
Log Distance	-0.979*** (0.0930)	-0.253*** (0.0456)	-1.020*** (0.0931)	-0.255*** (0.0456)	-0.998*** (0.0925)	-0.248*** (0.0455)	-0.974*** (0.0920)	-0.251*** (0.0457)	-0.974*** (0.0920)	-0.251*** (0.0457)	-0.943*** (0.0925)	-0.285*** (0.0458)
Common language	0.670*** (0.228)	0.333*** (0.119)	0.672*** (0.228)	0.328*** (0.119)	0.631*** (0.234)	0.356*** (0.126)	0.682*** (0.226)	0.338*** (0.118)	0.682*** (0.226)	0.338*** (0.118)	0.624*** (0.222)	0.373*** (0.119)
Domestic attacks*	-0.00137 (0.000840)	-4.43e-05 (0.000356)	-0.000855 (0.000833)	4.95e-05 (0.000352)	-0.00132 (0.000839)	-3.18e-05 (0.000357)	-0.00116 (0.000847)	-8.77e-05 (0.000358)	-0.00116 (0.000847)	-8.77e-05 (0.000358)	-0.000705 (0.000987)	-0.000500 (0.000400)
International attacks*	-0.00590 (0.00634)	0.00772** (0.00387)	-0.00461 (0.00626)	0.00777** (0.00388)	-0.00538 (0.00633)	0.00828** (0.00387)	-0.00569 (0.00635)	0.00765** (0.00386)	-0.00569 (0.00635)	0.00765** (0.00386)	-0.125*** (0.0398)	-0.0409** (0.0164)
Pair attacks	0.000917 (0.189)	0.0459 (0.0840)	0.0124 (0.182)	0.0436 (0.0839)	0.00670 (0.192)	0.0327 (0.0821)	0.00830 (0.188)	0.0427 (0.0823)	0.00830 (0.188)	0.0427 (0.0823)	0.103 (0.208)	0.0651 (0.0881)
Pair attacks*	-0.426** (0.174)	-0.155** (0.0662)	-0.426** (0.176)	-0.155** (0.0663)	-0.425** (0.175)	-0.157** (0.0665)	-0.422** (0.174)	-0.157** (0.0671)	-0.422** (0.174)	-0.157** (0.0671)	-0.222* (0.0396)	-0.0936* (0.0396)
KAOPEN sender		0.137** (0.0606)		0.133** (0.0630)		0.155** (0.0630)		0.133** (0.0606)		0.133** (0.0606)		0.135** (0.0617)
FDI dummy*		0.938*** (0.0401)		0.941*** (0.0399)		0.901*** (0.0396)		0.929*** (0.0403)		0.929*** (0.0403)		0.904*** (0.0401)
Constant	-2.389 (2.111)	-5.837*** (1.009)	-0.281 (2.110)	-5.530*** (1.010)	-2.217 (2.117)	-6.162*** (1.016)	-1.517 (2.125)	-5.859*** (1.018)	-1.517 (2.125)	-5.859*** (1.018)	-2.360 (2.040)	-5.755*** (1.010)
Observations	11,297	11,297	11,356	11,356	11,291	11,291	11,290	11,290	11,290	11,290	11,274	11,274

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1





Table O.2. Heckman Maximum Likelihood model of FDI/GDP and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part IV

VARIABLES	(1) w/o Ethiopia		(1) w/o Fiji		(1) w/o Georgia		(1) w/o Honduras		(1) w/o Indonesia		(1) w/o India	
	FDI Flow	Selection	FDI Flow	Selection	FDI Flow	Selection	FDI Flow	Selection	FDI Flow	Selection	FDI Flow	Selection
Log FDI stock*	0.635*** (0.0877)	0.218*** (0.0443)	0.625*** (0.0877)	0.212*** (0.0444)	0.635*** (0.0877)	0.218*** (0.0443)	0.633*** (0.0890)	0.218*** (0.0449)	0.642*** (0.0884)	0.217*** (0.0446)	0.645*** (0.0891)	0.207*** (0.0446)
Log GDP per capita receiver*	-0.828*** (0.121)	-0.146** (0.0582)	-0.814*** (0.121)	-0.138** (0.0585)	-0.828*** (0.121)	-0.146** (0.0582)	-0.817*** (0.123)	-0.147** (0.0589)	-0.833*** (0.122)	-0.146** (0.0584)	-0.833*** (0.122)	-0.141** (0.0584)
Log GDP per capita sender*	-0.0344 (0.0783)	-0.00445 (0.0355)	-0.0375 (0.0786)	-0.0109 (0.0357)	-0.0344 (0.0783)	-0.00445 (0.0355)	-0.0408 (0.0791)	-0.00924 (0.0359)	-0.0352 (0.0786)	-0.00491 (0.0356)	-0.0438 (0.0788)	-0.00573 (0.0359)
Log Population receiver	-0.751*** (0.0852)	-0.0228 (0.0409)	-0.763*** (0.0856)	-0.0321 (0.0415)	-0.751*** (0.0852)	-0.0228 (0.0409)	-0.739*** (0.0863)	-0.0233 (0.0413)	-0.765*** (0.0866)	-0.0221 (0.0416)	-0.776*** (0.0898)	-2.27e-05 (0.0421)
Log Population sender	0.877*** (0.0560)	0.408*** (0.0261)	0.883*** (0.0563)	0.410*** (0.0265)	0.877*** (0.0560)	0.408*** (0.0261)	0.877*** (0.0566)	0.399*** (0.0262)	0.872*** (0.0563)	0.404*** (0.0262)	0.875*** (0.0566)	0.404*** (0.0263)
Educational gap	-0.0114 (0.160)	-0.201*** (0.0689)	-0.0368 (0.160)	-0.215*** (0.0702)	-0.0114 (0.160)	-0.201*** (0.0689)	-0.0192 (0.160)	-0.201*** (0.0689)	-0.0200 (0.160)	-0.205*** (0.0690)	-0.0425 (0.161)	-0.184*** (0.0695)
KAOPEN receiver	0.117** (0.0474)	0.00738 (0.0223)	0.0971** (0.0483)	-0.00847 (0.0237)	0.117** (0.0474)	0.00738 (0.0223)	0.122** (0.0477)	0.00729 (0.0223)	0.109** (0.0478)	0.00730 (0.0225)	0.107** (0.0476)	0.0147 (0.0223)
Log Distance	-0.984*** (0.0925)	-0.252*** (0.0454)	-0.963*** (0.0932)	-0.232*** (0.0467)	-0.984*** (0.0925)	-0.252*** (0.0454)	-0.986*** (0.0930)	-0.247*** (0.0454)	-0.979*** (0.0927)	-0.251*** (0.0455)	-0.971*** (0.0923)	-0.249*** (0.0456)
Common language	0.684*** (0.227)	0.335*** (0.118)	0.701*** (0.232)	0.324*** (0.123)	0.684*** (0.227)	0.335*** (0.118)	0.715*** (0.231)	0.329*** (0.120)	0.687*** (0.227)	0.339*** (0.118)	0.674*** (0.234)	0.394*** (0.120)
Domestic attacks*	-0.00136 (0.000839)	-1.05e-05 (0.000356)	-0.00137 (0.000842)	1.21e-05 (0.000355)	-0.00136 (0.000839)	-1.05e-05 (0.000356)	-0.00134 (0.000840)	-1.17e-05 (0.000355)	-0.00132 (0.000840)	-8.51e-06 (0.000355)	-0.00165* (0.000867)	0.000461 (0.000401)
International attacks*	-0.00589 (0.00633)	0.00775** (0.00386)	-0.00635 (0.00633)	0.00764** (0.00386)	-0.00589 (0.00633)	0.00775** (0.00386)	-0.00581 (0.00631)	0.00778** (0.00386)	-0.00611 (0.00633)	0.00775** (0.00386)	-0.00526 (0.00631)	0.00611* (0.00365)
Pair attacks	-0.00156 (0.187)	0.0398 (0.0823)	-0.00485 (0.187)	0.0408 (0.0825)	-0.00156 (0.187)	0.0398 (0.0823)	-0.00674 (0.188)	0.0450 (0.0829)	-0.00329 (0.189)	0.0326 (0.0814)	-0.00620 (0.197)	0.0152 (0.0799)
Pair attacks*	-0.427** (0.175)	-0.157** (0.0667)	-0.427** (0.175)	-0.154** (0.0659)	-0.427** (0.175)	-0.157** (0.0667)	-0.442** (0.175)	-0.160** (0.0677)	-0.432** (0.176)	-0.154** (0.0665)	-0.412** (0.180)	-0.173** (0.0696)
KAOPEN sender		0.143** (0.0604)		0.141** (0.0608)		0.143** (0.0604)		0.143** (0.0602)		0.149** (0.0609)		0.141** (0.0606)
FDI dummy*		0.925*** (0.0395)		0.922*** (0.0397)		0.925*** (0.0395)		0.942*** (0.0399)		0.931*** (0.0398)		0.927*** (0.0403)
Constant	-1.866 (2.065)	-5.747*** (1.000)	-1.993 (2.073)	-5.816*** (1.009)	-1.866 (2.065)	-5.747*** (1.000)	-2.166 (2.082)	-5.651*** (1.006)	-1.592 (2.083)	-5.706*** (1.011)	-1.580 (2.122)	-6.084*** (1.016)
Observations	11,596	11,596	11,384	11,384	11,596	11,596	11,334	11,334	11,495	11,495	11,363	11,363

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



Table O.2. Heckman Maximum Likelihood model of FDI/GDP and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part V

VARIABLES	(1) w/o Kazakhstan FDI Flow	(2) Selection	(1) w/o Kyrgyzstan FDI Flow	(2) Selection	(1) w/o Malaysia FDI Flow	(2) Selection	(1) w/o Mauritius FDI Flow	(2) Selection	(1) w/o Mexico FDI Flow	(2) Selection	(1) w/o Moldova FDI Flow	(2) Selection
Log FDI stock*	0.614*** (0.0881)	0.213*** (0.0449)	0.642*** (0.0884)	0.219*** (0.0446)	0.633*** (0.0896)	0.204*** (0.0447)	0.638*** (0.0908)	0.216*** (0.0453)	0.627*** (0.0875)	0.219*** (0.0442)	0.635*** (0.0877)	0.218*** (0.0443)
Log GDP per capita receiver*	-0.796*** (0.123)	-0.126** (0.0589)	-0.799*** (0.124)	-0.153*** (0.0592)	-0.837*** (0.122)	-0.132** (0.0586)	-0.830*** (0.125)	-0.143*** (0.0596)	-0.791*** (0.121)	-0.167*** (0.0583)	-0.828*** (0.121)	-0.146** (0.0582)
Log GDP per capita sender**	-0.0403 (0.0792)	-0.00223 (0.0359)	-0.0467 (0.0788)	-0.00777 (0.0358)	-0.0266 (0.0795)	-0.00402 (0.0360)	-0.0360 (0.0787)	-0.00238 (0.0359)	-0.0240 (0.0806)	-0.00405 (0.0359)	-0.0344 (0.0783)	-0.00445 (0.0355)
Log Population receiver	-0.727*** (0.0856)	-0.0202 (0.0417)	-0.747*** (0.0856)	-0.0246 (0.0411)	-0.748*** (0.0861)	-0.0131 (0.0412)	-0.754*** (0.0859)	-0.0242 (0.0410)	-0.725*** (0.0844)	-0.0448 (0.0407)	-0.751*** (0.0852)	-0.0228 (0.0409)
Log Population sender	0.869*** (0.0567)	0.414*** (0.0268)	0.882*** (0.0566)	0.411*** (0.0263)	0.868*** (0.0572)	0.408*** (0.0265)	0.881*** (0.0563)	0.407*** (0.0263)	0.851*** (0.0553)	0.412*** (0.0263)	0.877*** (0.0560)	0.408*** (0.0261)
Educational gap	0.0288 (0.163)	-0.204*** (0.0705)	0.0132 (0.161)	-0.205*** (0.0699)	-0.00151 (0.160)	-0.202*** (0.0695)	-0.00376 (0.160)	-0.188*** (0.0689)	-0.0171 (0.160)	-0.194*** (0.0688)	-0.0114 (0.160)	-0.201*** (0.0689)
KAOPEN receiver	0.136*** (0.0477)	-0.00432 (0.0233)	0.108** (0.0478)	0.00926 (0.0227)	0.126*** (0.0478)	0.00462 (0.0225)	0.114** (0.0476)	0.00761 (0.0225)	0.130*** (0.0469)	-0.00218 (0.0223)	0.117** (0.0474)	0.00738 (0.0223)
Log Distance	-0.992*** (0.0925)	-0.244*** (0.0457)	-0.992*** (0.0932)	-0.257*** (0.0457)	-0.995*** (0.0935)	-0.251*** (0.0458)	-0.984*** (0.0933)	-0.252*** (0.0454)	-0.955*** (0.0917)	-0.263*** (0.0453)	-0.984*** (0.0925)	-0.252*** (0.0454)
Common language	0.702*** (0.227)	0.325*** (0.118)	0.700*** (0.227)	0.336*** (0.118)	0.698*** (0.228)	0.337*** (0.118)	0.620*** (0.237)	0.272** (0.118)	0.686*** (0.229)	0.333*** (0.117)	0.684*** (0.227)	0.335*** (0.118)
Domestic attacks*	-0.00130 (0.000838)	-5.41e-05 (0.000357)	-0.00134 (0.000839)	-5.54e-06 (0.000357)	-0.00133 (0.000840)	-1.67e-05 (0.000356)	-0.00135 (0.000840)	1.46e-05 (0.000355)	-0.00150* (0.000838)	0.000115 (0.000355)	-0.00136 (0.000839)	-1.05e-05 (0.000356)
International attacks*	-0.00571 (0.00633)	0.00786** (0.00387)	-0.00620 (0.00631)	0.00785** (0.00388)	-0.00567 (0.00634)	0.00791** (0.00387)	-0.00618 (0.00633)	0.00755* (0.00386)	-0.00636 (0.00635)	0.00870** (0.00393)	-0.00589 (0.00633)	0.00775** (0.00386)
Pair attacks	-0.00374 (0.187)	0.0378 (0.0819)	-0.00720 (0.187)	0.0379 (0.0822)	-0.00583 (0.186)	0.0413 (0.0828)	0.00150 (0.190)	0.0453 (0.0821)	0.0147 (0.192)	0.0392 (0.0834)	-0.00156 (0.187)	0.0398 (0.0823)
Pair attacks*	-0.426** (0.175)	-0.155** (0.0664)	-0.425** (0.174)	-0.158** (0.0670)	-0.424** (0.176)	-0.152** (0.0652)	-0.426** (0.175)	-0.155** (0.0663)	-0.436** (0.177)	-0.154** (0.0659)	-0.427** (0.175)	-0.157** (0.0667)
KAOPEN sender		0.149** (0.0624)		0.166*** (0.0621)		0.135** (0.0611)		0.141** (0.0602)		0.136** (0.0619)		0.143** (0.0604)
FDI dummy*		0.910*** (0.0401)		0.942*** (0.0398)		0.928*** (0.0401)		0.934*** (0.0398)		0.900*** (0.0395)		0.925*** (0.0395)
Constant	-2.218 (2.102)	-6.064*** (1.023)	-2.322 (2.104)	-5.746*** (1.013)	-1.599 (2.086)	-5.918*** (1.007)	-1.894 (2.090)	-5.745*** (1.007)	-2.366 (2.079)	-5.206*** (1.001)	-1.866 (2.065)	-5.747*** (1.000)
Observations	11,315	11,315	11,398	11,398	11,320	11,320	11,382	11,382	11,329	11,329	11,596	11,596

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table O.2. Heckman Maximum Likelihood model of FDI/GDP and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part VI

VAR/ABLES	(1)		(2)		(1)		(2)		(1)		(2)		(1)		(2)	
	w/o Morocco		w/o Myanmar		w/o Nigeria		w/o Oman		w/o Panama							
	FDI Flow	Selection	FDI Flow	Selection	FDI Flow	Selection	FDI Flow	Selection	FDI Flow	Selection	FDI Flow	Selection	FDI Flow	Selection	FDI Flow	Selection
Log FDI stock*	0.703*** (0.0908)	0.199*** (0.0446)	0.642*** (0.0880)	0.247*** (0.0449)	0.635*** (0.0877)	0.218*** (0.0443)	0.635*** (0.0877)	0.218*** (0.0443)	0.632*** (0.0884)	0.226*** (0.0445)			0.632*** (0.0884)	0.226*** (0.0445)		
Log GDP per capita receiver*	-0.869*** (0.124)	-0.135** (0.0583)	-0.841*** (0.122)	-0.195*** (0.0599)	-0.828*** (0.121)	-0.146** (0.0582)	-0.828*** (0.121)	-0.146** (0.0582)	-0.825*** (0.122)	-0.156*** (0.0582)			-0.825*** (0.122)	-0.156*** (0.0582)		
Log GDP per capita sender*	-0.0450 (0.0798)	-0.0189 (0.0358)	-0.0343 (0.0783)	-0.00373 (0.0358)	-0.0344 (0.0783)	-0.00445 (0.0355)	-0.0344 (0.0783)	-0.00445 (0.0355)	-0.0349 (0.0787)	-0.0101 (0.0358)			-0.0349 (0.0787)	-0.0101 (0.0358)		
Log Population receiver	-0.824*** (0.0880)	-0.00564 (0.0415)	-0.758*** (0.0853)	-0.0506 (0.0413)	-0.751*** (0.0852)	-0.0228 (0.0409)	-0.751*** (0.0852)	-0.0228 (0.0409)	-0.747*** (0.0862)	-0.0351 (0.0414)			-0.747*** (0.0862)	-0.0351 (0.0414)		
Log Population sender	0.865*** (0.0575)	0.409*** (0.0264)	0.876*** (0.0560)	0.411*** (0.0264)	0.877*** (0.0560)	0.408*** (0.0261)	0.877*** (0.0560)	0.408*** (0.0261)	0.878*** (0.0568)	0.403*** (0.0264)			0.878*** (0.0568)	0.403*** (0.0264)		
Educational gap	0.308* (0.177)	-0.254*** (0.0762)	0.00497 (0.160)	-0.142** (0.0712)	-0.0114 (0.160)	-0.201*** (0.0689)	-0.0114 (0.160)	-0.201*** (0.0689)	-0.0130 (0.160)	-0.201*** (0.0689)			-0.0130 (0.160)	-0.201*** (0.0689)		
KAOPEN receiver	0.0959** (0.0477)	0.0129 (0.0224)	0.115** (0.0473)	-0.00110 (0.0225)	0.117** (0.0474)	0.00738 (0.0223)	0.117** (0.0474)	0.00738 (0.0223)	0.113** (0.0478)	0.0156 (0.0226)			0.113** (0.0478)	0.0156 (0.0226)		
Log Distance	-1.043*** (0.0998)	-0.217*** (0.0474)	-0.983*** (0.0926)	-0.250*** (0.0453)	-0.984*** (0.0925)	-0.252*** (0.0454)	-0.984*** (0.0925)	-0.252*** (0.0454)	-0.987*** (0.0930)	-0.246*** (0.0454)			-0.987*** (0.0930)	-0.246*** (0.0454)		
Common language	0.640*** (0.238)	0.348*** (0.0628)	0.673*** (0.227)	0.291** (0.119)	0.684*** (0.227)	0.335*** (0.118)	0.684*** (0.227)	0.335*** (0.118)	0.665*** (0.231)	0.311*** (0.119)			0.665*** (0.231)	0.311*** (0.119)		
Domestic attacks*	-0.00182** (0.000833)	0.000104 (0.000355)	-0.00139* (0.000839)	-0.000139 (0.000355)	-0.00136 (0.000839)	-1.05e-05 (0.000356)	-0.00136 (0.000839)	-1.05e-05 (0.000356)	-0.00137 (0.000839)	5.24e-05 (0.000354)			-0.00137 (0.000839)	5.24e-05 (0.000354)		
International attacks*	-0.00499 (0.00628)	0.00734* (0.00385)	-0.00594 (0.00633)	0.00751** (0.00383)	-0.00589 (0.00633)	0.00775** (0.00386)	-0.00589 (0.00633)	0.00775** (0.00386)	-0.00606 (0.00633)	0.00755** (0.00385)			-0.00606 (0.00633)	0.00755** (0.00385)		
Pair attacks	-0.0182 (0.190)	0.0364 (0.0824)	-0.00277 (0.187)	0.0360 (0.0801)	-0.00156 (0.187)	0.0398 (0.0823)	-0.00156 (0.187)	0.0398 (0.0823)	0.00198 (0.187)	0.0444 (0.0823)			0.00198 (0.187)	0.0444 (0.0823)		
Pair attacks*	-0.455** (0.181)	-0.166** (0.0710)	-0.428** (0.175)	-0.160** (0.0675)	-0.427** (0.175)	-0.157** (0.0667)	-0.427** (0.175)	-0.157** (0.0667)	-0.427** (0.175)	-0.157** (0.0668)			-0.427** (0.175)	-0.157** (0.0668)		
KAOPEN sender		0.130** (0.0607)		0.145** (0.0608)		0.143** (0.0604)		0.143** (0.0604)		0.143** (0.0602)				0.143** (0.0602)		
FDI dummy*		0.934*** (0.0403)		0.905*** (0.0394)		0.925*** (0.0395)		0.925*** (0.0395)		0.930*** (0.0400)				0.930*** (0.0400)		
Constant	-0.686 (2.168)	-6.231*** (1.023)	-1.722 (2.064)	-5.292*** (1.007)	-1.866 (2.065)	-5.747*** (1.000)	-1.866 (2.065)	-5.747*** (1.000)	-1.927 (2.076)	-5.532*** (1.004)			-1.927 (2.076)	-5.532*** (1.004)		
Observations	11,284	11,284	11,413	11,413	11,596	11,596	11,596	11,596	11,313	11,313			11,313	11,313		

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table O.2. Heckman Maximum Likelihood model of FDI/GDP and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part VI

VARIABLES	w/o Morocco		w/o Myanmar		w/o Nigeria		w/o Oman		w/o Pakistan		w/o Panama	
	(1) FDI Flow	(2) Selection	(1) FDI Flow	(2) Selection	(1) FDI Flow	(2) Selection	(1) FDI Flow	(2) Selection	(1) FDI Flow	(2) Selection	(1) FDI Flow	(2) Selection
Log FDI stock*	0.703*** (0.0908)	0.199*** (0.0446)	0.642*** (0.0880)	0.247*** (0.0449)	0.635*** (0.0877)	0.218*** (0.0443)	0.635*** (0.0877)	0.218*** (0.0443)	0.633*** (0.0883)	0.218*** (0.0446)	0.632*** (0.0884)	0.226*** (0.0445)
Log GDP per capita receiver*	-0.869*** (0.124)	-0.135** (0.0583)	-0.841*** (0.122)	-0.195*** (0.0599)	-0.828*** (0.121)	-0.146** (0.0582)	-0.828*** (0.121)	-0.146** (0.0582)	-0.813*** (0.122)	-0.150** (0.0585)	-0.825*** (0.122)	-0.156*** (0.0582)
Log GDP per capita sender**	-0.0450 (0.0798)	-0.0189 (0.0358)	-0.0343 (0.0783)	-0.00373 (0.0358)	-0.0344 (0.0783)	-0.00445 (0.0355)	-0.0344 (0.0783)	-0.00445 (0.0355)	-0.0333 (0.0791)	-0.00607 (0.0358)	-0.0349 (0.0787)	-0.0101 (0.0358)
Log Population receiver	-0.824*** (0.0880)	-0.00564 (0.0415)	-0.753*** (0.0853)	-0.0506 (0.0413)	-0.751*** (0.0852)	-0.0228 (0.0409)	-0.751*** (0.0852)	-0.0228 (0.0409)	-0.745*** (0.0862)	-0.0219 (0.0413)	-0.747*** (0.0862)	-0.0351 (0.0414)
Log Population sender	0.865*** (0.0575)	0.409*** (0.0264)	0.876*** (0.0560)	0.411*** (0.0264)	0.877*** (0.0560)	0.408*** (0.0261)	0.877*** (0.0560)	0.408*** (0.0261)	0.882*** (0.0565)	0.406*** (0.0262)	0.878*** (0.0568)	0.403*** (0.0264)
Educational gap	0.308* (0.177)	-0.254*** (0.0762)	0.00497 (0.160)	-0.142** (0.0712)	-0.0114 (0.160)	-0.201*** (0.0689)	-0.0114 (0.160)	-0.201*** (0.0689)	-0.0284 (0.166)	-0.199*** (0.0712)	-0.0130 (0.160)	-0.201*** (0.0689)
KAOPEN receiver	0.0959** (0.0477)	0.0129 (0.0224)	0.115** (0.0473)	-0.00110 (0.0225)	0.117** (0.0474)	0.00738 (0.0223)	0.117** (0.0474)	0.00738 (0.0223)	0.112** (0.0474)	0.00794 (0.0224)	0.113** (0.0478)	0.0156 (0.0226)
Log Distance	-1.043*** (0.0998)	-0.217*** (0.0474)	-0.983*** (0.0926)	-0.250*** (0.0453)	-0.984*** (0.0925)	-0.252*** (0.0454)	-0.984*** (0.0925)	-0.252*** (0.0454)	-0.979*** (0.0921)	-0.253*** (0.0454)	-0.987*** (0.0930)	-0.246*** (0.0454)
Common language	0.640*** (0.238)	0.348*** (0.119)	0.673*** (0.227)	0.291** (0.119)	0.684*** (0.227)	0.335*** (0.118)	0.684*** (0.227)	0.335*** (0.118)	0.660*** (0.233)	0.350*** (0.122)	0.665*** (0.231)	0.311*** (0.119)
Domestic attacks*	-0.00182** (0.000833)	0.000104 (0.000355)	-0.00139* (0.000839)	-0.000139 (0.000355)	-0.00136 (0.000839)	-1.05e-05 (0.000356)	-0.00136 (0.000839)	-1.05e-05 (0.000356)	-0.00235** (0.00101)	5.95e-05 (0.000448)	-0.00137 (0.000839)	5.24e-05 (0.000354)
International attacks*	-0.00499 (0.00628)	0.00734* (0.00385)	-0.00594 (0.00633)	0.00751** (0.00383)	-0.00589 (0.00633)	0.00775** (0.00386)	-0.00589 (0.00633)	0.00775** (0.00386)	-0.00426 (0.00639)	0.00798** (0.00396)	-0.00606 (0.00633)	0.00755** (0.00385)
Pair attacks	-0.0182 (0.190)	0.0364 (0.0824)	-0.00277 (0.187)	0.0360 (0.0801)	-0.00156 (0.187)	0.0398 (0.0823)	-0.00156 (0.187)	0.0398 (0.0823)	-0.140 (0.174)	0.0115 (0.0834)	0.00198 (0.187)	0.0444 (0.0823)
Pair attacks*	-0.455** (0.181)	-0.166** (0.0710)	-0.428** (0.175)	-0.160** (0.0675)	-0.427** (0.175)	-0.157** (0.0667)	-0.427** (0.175)	-0.157** (0.0667)	-0.460** (0.215)	-0.164** (0.0849)	-0.427** (0.175)	-0.157** (0.0668)
KAOPEN sender		0.130** (0.0607)		0.145** (0.0608)		0.143** (0.0604)		0.143** (0.0604)		0.145** (0.0609)		0.143** (0.0602)
FDI dummy*		0.934*** (0.0403)		0.905*** (0.0394)		0.925*** (0.0395)		0.925*** (0.0395)		0.944*** (0.0400)		0.930*** (0.0400)
Constant	-0.686 (2.168)	-6.231*** (1.023)	-1.722 (2.064)	-5.292*** (1.007)	-1.866 (2.065)	-5.747*** (1.000)	-1.866 (2.065)	-5.747*** (1.000)	-2.125 (2.087)	-5.695*** (1.006)	-1.927 (2.076)	-5.532*** (1.004)
Observations	11,284	11,284	11,413	11,413	11,596	11,596	11,596	11,596	11,351	11,351	11,313	11,313

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1





Table O.3. Heckman Maximum Likelihood model of FDI share and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part II

VARIABLES	(1) w/o Finland FDI Share	(2) Selection	(1) w/o France FDI Share	(2) Selection	(1) w/o Germany FDI Share	(2) Selection	(1) w/o Greece FDI Share	(2) Selection	(1) w/o Ireland FDI Share	(2) Selection	(1) w/o Italy FDI Share	(2) Selection
Log FDI stock*	0.608*** (0.0871)	0.212*** (0.0451)	0.621*** (0.0923)	0.223*** (0.0453)	0.603*** (0.0919)	0.227*** (0.0456)	0.640*** (0.0863)	0.226*** (0.0452)	0.622*** (0.0879)	0.214*** (0.0453)	0.607*** (0.0898)	0.225*** (0.0453)
Log GDP per capita receiver*	0.222* (0.118)	-0.149** (0.0597)	0.216* (0.123)	-0.156*** (0.0595)	0.223* (0.123)	-0.164*** (0.0600)	0.233** (0.117)	-0.153** (0.0595)	0.218* (0.119)	-0.142** (0.0596)	0.237* (0.122)	-0.154** (0.0601)
Log GDP per capita sender*	0.000884 (0.0758)	-0.00295 (0.0361)	-0.0110 (0.0797)	-0.00890 (0.0366)	-0.00236 (0.0796)	-0.0158 (0.0360)	0.00366 (0.0753)	-0.00443 (0.0364)	0.00747 (0.0761)	-0.00402 (0.0362)	-0.00270 (0.0782)	-0.00905 (0.0366)
Log Population receiver	0.292*** (0.0848)	-0.0255 (0.0417)	0.286*** (0.0889)	-0.0299 (0.0420)	0.285*** (0.0890)	-0.0331 (0.0421)	0.288*** (0.0829)	-0.0303 (0.0417)	0.297*** (0.0854)	-0.0237 (0.0421)	0.310*** (0.0869)	-0.0305 (0.0419)
Log Population sender	-0.0366 (0.0568)	0.390*** (0.0264)	-0.0381 (0.0572)	0.397*** (0.0268)	-0.0494 (0.0579)	0.398*** (0.0271)	-0.0556 (0.0560)	0.414*** (0.0262)	-0.0109 (0.0581)	0.401*** (0.0272)	-0.0493 (0.0569)	0.412*** (0.0269)
Educational gap	-0.163 (0.158)	-0.198*** (0.0699)	-0.154 (0.165)	-0.189*** (0.0697)	-0.136 (0.166)	-0.214*** (0.0705)	-0.140 (0.156)	-0.207*** (0.0700)	-0.153 (0.160)	-0.172** (0.0710)	-0.116 (0.162)	-0.192*** (0.0702)
KAOPEN receiver	0.0761* (0.0456)	0.00783 (0.0229)	0.0765 (0.0476)	0.00313 (0.0230)	0.0848* (0.0473)	0.000437 (0.0231)	0.0588 (0.0442)	0.00969 (0.0227)	0.0775* (0.0461)	0.0123 (0.0230)	0.0970** (0.0471)	0.00742 (0.0232)
Log Distance	-0.896*** (0.0918)	-0.263*** (0.0466)	-0.898*** (0.0955)	-0.267*** (0.0466)	-0.881*** (0.0953)	-0.267*** (0.0467)	-0.826*** (0.0870)	-0.270*** (0.0471)	-0.900*** (0.0923)	-0.252*** (0.0464)	-0.888*** (0.100)	-0.269*** (0.0476)
Common language	0.587*** (0.211)	0.313*** (0.117)	0.565*** (0.226)	0.308*** (0.118)	0.596*** (0.213)	0.352*** (0.118)	0.568*** (0.211)	0.294** (0.119)	0.624*** (0.217)	0.374*** (0.126)	0.609*** (0.212)	0.318*** (0.118)
Domestic attacks*	-0.00152** (0.000709)	4.22e-05 (0.000366)	-0.00157** (0.000750)	-2.67e-05 (0.000366)	-0.00175** (0.000757)	-3.44e-05 (0.000365)	-0.00174** (0.000696)	8.19e-05 (0.000366)	-0.00189*** (0.000713)	3.39e-05 (0.000364)	-0.00165** (0.000722)	0.000117 (0.000365)
International attacks*	-0.00535 (0.00591)	0.00812** (0.00409)	-0.00493 (0.00598)	0.00730* (0.00388)	-0.00474 (0.00595)	0.00785** (0.00391)	-0.00490 (0.00566)	0.00925** (0.00406)	-0.00646 (0.00558)	0.00693* (0.00385)	-0.00367 (0.00587)	0.00799** (0.00398)
Pair attacks	-0.121 (0.200)	0.0428 (0.0824)	-0.109 (0.210)	0.174* (0.101)	-0.0804 (0.214)	0.0549 (0.0900)	-0.123 (0.204)	0.0331 (0.0808)	-0.107 (0.202)	0.0365 (0.0822)	-0.110 (0.207)	0.0603 (0.0886)
Pair attacks*	-0.268* (0.154)	-0.180** (0.0752)	-0.394** (0.173)	-0.151** (0.0687)	-0.344* (0.175)	-0.159** (0.0728)	-0.339** (0.164)	-0.172** (0.0724)	-0.306* (0.163)	-0.158** (0.0699)	-0.396** (0.170)	-0.183** (0.0749)
KAOPEN sender		0.169*** (0.0622)		0.138** (0.0612)		0.141** (0.0613)		0.0611 (0.0594)		0.149** (0.0625)		0.140** (0.0622)
FDI dummy*		0.910*** (0.0402)		0.893*** (0.0404)		0.899*** (0.0403)		0.928*** (0.0402)		0.897*** (0.0406)		0.880*** (0.0404)
Constant	-7.623*** (1.995)	-5.274*** (1.019)	-7.665*** (2.066)	-5.341*** (1.022)	-7.474*** (2.062)	-5.244*** (1.024)	-8.213*** (1.932)	-5.374*** (1.006)	-8.166*** (2.003)	-5.683*** (1.031)	-8.013*** (2.058)	-5.566*** (1.031)
Observations	11,012	11,012	11,015	11,015	11,012	11,012	10,959	10,959	11,005	11,005	11,009	11,009

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table O.3. Heckman Maximum Likelihood model of FDI share and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part III

VARIABLES	(1) w/o Japan FDI Share	(2) Selection	(1) w/o Luxembourg FDI Share	(2) Selection	(1) w/o Netherlands FDI Share	(2) Selection	(1) w/o Norway FDI Share	(2) Selection	(1) w/o New Zealand FDI Share	(2) Selection	(1) w/o Portugal FDI Share	(2) Selection
Log FDI stock*	0.622*** (0.0879)	0.214*** (0.0453)	0.617*** (0.0865)	0.215*** (0.0443)	0.627*** (0.0907)	0.222*** (0.0454)	0.616*** (0.0863)	0.221*** (0.0454)	0.605*** (0.0870)	0.203*** (0.0452)	0.636*** (0.0869)	0.211*** (0.0454)
Log GDP per capita receiver*	0.218* (0.119)	-0.142** (0.0596)	0.226* (0.117)	-0.144** (0.0585)	0.207* (0.123)	-0.153** (0.0599)	0.237** (0.118)	-0.157*** (0.0603)	0.223* (0.118)	-0.124** (0.0597)	0.200* (0.118)	-0.152** (0.0594)
Log GDP per capita sender*	0.00747 (0.0761)	-0.00402 (0.0362)	0.0151 (0.0752)	-0.00548 (0.0355)	0.0118 (0.0783)	0.00416 (0.0362)	0.0262 (0.0757)	-0.0155 (0.0365)	0.00515 (0.0751)	-0.000493 (0.0359)	0.00958 (0.0756)	0.00732 (0.0363)
Log Population receiver	0.297*** (0.0854)	-0.0237 (0.0421)	0.292*** (0.0838)	-0.0220 (0.0410)	0.285*** (0.0876)	-0.0247 (0.0420)	0.291*** (0.0834)	-0.0228 (0.0420)	0.310*** (0.0842)	-0.0138 (0.0417)	0.285*** (0.0843)	-0.0143 (0.0422)
Log Population sender	-0.0109 (0.0581)	0.401*** (0.0272)	-0.0384 (0.0557)	0.409*** (0.0261)	-0.0361 (0.0564)	0.412*** (0.0262)	-0.0263 (0.0577)	0.416*** (0.0269)	-0.0188 (0.0573)	0.382*** (0.0270)	-0.0488 (0.0558)	0.401*** (0.0261)
Educational gap	-0.153 (0.160)	-0.172** (0.0710)	-0.159 (0.157)	-0.197*** (0.0689)	-0.109 (0.164)	-0.226*** (0.0704)	-0.219 (0.155)	-0.226*** (0.0710)	-0.172 (0.159)	-0.149** (0.0707)	-0.236 (0.158)	-0.260*** (0.0711)
KAOPEN receiver	0.0775* (0.0461)	0.0123 (0.0230)	0.0779* (0.0452)	0.00712 (0.0225)	0.0922* (0.0473)	0.00449 (0.0229)	0.0796* (0.0458)	0.0140 (0.0232)	0.0818* (0.0457)	0.00777 (0.0229)	0.0690 (0.0452)	0.0139 (0.0231)
Log Distance	-0.900*** (0.0923)	-0.252*** (0.0464)	-0.891*** (0.0907)	-0.253*** (0.0456)	-0.929*** (0.0931)	-0.261*** (0.0466)	-0.907*** (0.0913)	-0.253*** (0.0467)	-0.909*** (0.0915)	-0.218*** (0.0466)	-0.884*** (0.0921)	-0.246*** (0.0468)
Common language	0.624*** (0.217)	0.374*** (0.126)	0.592*** (0.211)	0.332*** (0.117)	0.587*** (0.213)	0.381*** (0.118)	0.611*** (0.211)	0.351*** (0.118)	0.576*** (0.212)	0.362*** (0.127)	0.543** (0.212)	0.320*** (0.118)
Domestic attacks*	-0.00189*** (0.000713)	3.39e-05 (0.000364)	-0.00171** (0.000705)	1.96e-05 (0.000356)	-0.00210*** (0.000741)	-4.41e-05 (0.000360)	-0.00145** (0.000703)	6.27e-05 (0.000361)	-0.00166** (0.000706)	3.37e-05 (0.000363)	-0.00168** (0.000717)	5.04e-05 (0.000364)
International attacks*	-0.00646 (0.00558)	0.00693* (0.00385)	-0.00446 (0.00567)	0.00777** (0.00388)	-0.00405 (0.00571)	0.00764* (0.00392)	-0.00545 (0.00586)	0.00682* (0.00388)	-0.00269 (0.00569)	0.00714* (0.00399)	-0.00385 (0.00561)	0.00725* (0.00395)
Pair attacks	-0.107 (0.202)	0.0365 (0.0822)	-0.116 (0.204)	0.0415 (0.0819)	-0.0793 (0.208)	0.0522 (0.0848)	-0.117 (0.205)	0.0433 (0.0808)	-0.130 (0.202)	0.0451 (0.0812)	-0.0952 (0.207)	0.0395 (0.0817)
Pair attacks*	-0.306* (0.163)	-0.158** (0.0699)	-0.331** (0.165)	-0.174** (0.0726)	-0.395*** (0.173)	-0.171** (0.0755)	-0.328* (0.197)	-0.218*** (0.0722)	-0.336** (0.165)	-0.175** (0.0719)	-0.334** (0.167)	-0.182** (0.0746)
KAOPEN sender		0.149*** (0.0625)		0.141** (0.0622)		0.117* (0.0611)		0.134** (0.0625)		0.171*** (0.0640)		0.162*** (0.0625)
FDI dummy*		0.897*** (0.0406)		0.904*** (0.0395)		0.901*** (0.0405)		0.914*** (0.0406)		0.928*** (0.0403)		0.920*** (0.0404)
Constant	-8.166*** (2.003)	-5.683*** (1.031)	-7.686*** (1.977)	-5.778*** (1.008)	-7.289*** (2.025)	-5.608*** (1.025)	-7.678*** (1.990)	-5.810*** (1.036)	-8.078*** (1.984)	-5.966*** (1.024)	-7.370*** (2.005)	-5.620*** (1.029)
Observations	11,005	11,005	11,530	11,530	11,077	11,077	10,976	10,976	10,967	10,967	11,003	11,003

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



Table O.3. Heckman Maximum Likelihood model of FDI share and Terrorist Incidents between pairs of countries from 1995 to 2010, clustered by country pairs and with year effects. Part IV

VARIABLES	(1) w/o Spain FDI Share	(2) Selection	(1) w/o Sweden FDI Share	(2) Selection	(1) w/o Switzerland FDI Share	(2) Selection
Log FDI stock*	0.633*** (0.0855)	0.216*** (0.0456)	0.609*** (0.0895)	0.205*** (0.0454)	0.659*** (0.0908)	0.236*** (0.0447)
Log GDP per capita receiver**	0.175 (0.116)	-0.150** (0.0606)	0.215* (0.120)	-0.139** (0.0601)	0.184 (0.122)	-0.160*** (0.0593)
Log GDP per capita sender**	0.0129 (0.0782)	-0.00968 (0.0360)	0.0419 (0.0773)	-0.00945 (0.0367)	0.0528 (0.0770)	0.0243 (0.0365)
Log Population receiver	0.285*** (0.0840)	-0.0259 (0.0419)	0.292*** (0.0870)	-0.0161 (0.0420)	0.276*** (0.0878)	-0.0282 (0.0415)
Log Population sender	-0.0122 (0.0545)	0.420*** (0.0266)	-0.0263 (0.0581)	0.413*** (0.0263)	-0.00258 (0.0591)	0.440*** (0.0265)
Educational gap	-0.244 (0.158)	-0.187*** (0.0706)	-0.204 (0.163)	-0.204*** (0.0714)	-0.150 (0.163)	-0.192*** (0.0705)
KAOPEN receiver	0.0617 (0.0460)	0.00416 (0.0232)	0.0694 (0.0461)	0.0154 (0.0230)	0.0904* (0.0471)	0.00325 (0.0229)
Log Distance	-0.921*** (0.0902)	-0.258*** (0.0472)	-0.919*** (0.0931)	-0.255*** (0.0466)	-0.956*** (0.0942)	-0.264*** (0.0470)
Common language	0.487* (0.265)	0.147 (0.130)	0.603*** (0.213)	0.348*** (0.117)	0.709*** (0.216)	0.303*** (0.117)
Domestic attacks*	-0.00177** (0.000712)	0.000210 (0.000355)	-0.00163** (0.000732)	3.16e-05 (0.000368)	-0.00195*** (0.000705)	-6.07e-05 (0.000366)
International attacks*	-0.00713 (0.00596)	0.00775* (0.00396)	-0.00475 (0.00600)	0.00722* (0.00388)	-0.00415 (0.00591)	0.00743* (0.00397)
Pair attacks	-0.122 (0.213)	0.0359 (0.0807)	-0.114 (0.202)	0.0432 (0.0823)	-0.129 (0.209)	0.0322 (0.0808)
Pair attacks*	-0.339** (0.168)	-0.132* (0.0795)	-0.294* (0.166)	-0.175** (0.0763)	-0.352** (0.174)	-0.175** (0.0763)
KAOPEN sender		0.138** (0.0623)		0.130** (0.0620)		0.0989 (0.0619)
FDI dummy*		0.901*** (0.0408)		0.886*** (0.0404)		0.931*** (0.0399)
Constant	-7.295*** (1.977)	-5.818*** (1.034)	-7.316*** (2.027)	-5.897*** (1.027)	-7.364*** (2.054)	-5.968*** (1.034)
Observations	11,017	11,017	10,971	10,971	11,024	11,024

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 \*\*\*



## Chapter 3 TABLES

---

Table 3.1. Summary Statistics of Dependent and Independent Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
<i>Dependent Variable (number of attacks from X against Y)</i>					
Attacks	120	1.000	2.925	0	23
<i>Public Opinion in Source Country X</i>					
Justification	120	0.233	0.158	0.080	0.7
Opinion	120	0.319	0.195	0.020	0.86
Justify& Opinion	120	0.080	0.092	0.002	0.602
Justify & Unf.Op.	120	0.087	0.096	0.002	0.638
Justify & Fav. Op.	120	0.127	0.096	0.009	0.469
NoJust. & Unf.Op.	120	0.216	0.147	0.017	0.643
<i>Source Country X</i>					
Population X	120	7.499	0.624	6.425	8.353
Civil Liberties X	120	3.900	0.824	2.000	5
GDP per capita X	120	3.086	0.552	2.148	4.310
GDPper capita^2X	120	9.826	3.566	4.614	18.575
Muslim Religion	120	0.779	0.203	0.328	0.99
ExColonies	120	0.692	0.464	0	1
Big Neighbors	120	0.282	0.482	0	1.23
<i>Target Country Y</i>					
Civil Liberties of Y	120	3.842	2.150	1	6
GDP per capita Y	120	3.849	0.717	2.280	5.952
Distance X - Y	120	3.707	0.328	2.603	4.213
Population Y	120	8.139	0.520	7.383	9.120

Table 3.2. Overview of Source Countries by Dimensions of Public Opinion

Country X	Obs	Mean	Stan. Dev.	Min	Max
Justification of Suicide Bombing	16	0.232	0.158	0.08	0.7
<i>Unfavorable Opinion of X towards Y Across Pairs of Countries</i>					
Country X	Obs.	Mean	Stan. Dev.	Min	Max
Bangladesh	9	0.224	0.134	0.06	0.41
Egypt	7	0.429	0.212	0.08	0.78
Ethiopia	6	0.262	0.193	0.08	0.59
Indonesia	9	0.246	0.189	0.08	0.66
Jordan	8	0.457	0.245	0.1	0.78
Kuwait	8	0.27	0.132	0.14	0.46
Lebanon	8	0.429	0.155	0.17	0.64
Malaysia	9	0.254	0.177	0.1	0.69
Mali	6	0.207	0.138	0.07	0.42
Morocco	8	0.264	0.134	0.15	0.56
Nigeria	6	0.258	0.115	0.16	0.47
Tanzania	6	0.245	0.19	0.08	0.56
Turkey	8	0.52	0.16	0.37	0.83
Palestine	8	0.503	0.173	0.33	0.86
Pakistan	9	0.306	0.275	0.02	0.8
Senegal	6	0.233	0.146	0.09	0.43
Opinion	121	0.322	0.199	0.02	0.86

Table 3.3. Unfavorable Opinion towards Target Countries

Unfavorable Opinion of Regional Leading Countries				
<b>United States</b>			<b>Saudi Arabia</b>	
Mali	<i>min</i>	0.18	Pakistan	<i>Min</i> 0.02
Palestine	<i>max</i>	0.86	Turkey	<i>max</i> 0.39
<i>Average</i>		0.53	<i>Average</i>	0.17
<b>Russian Federation</b>			<b>Japan</b>	
Tanzania	<i>min</i>	0.20	Tanzania	<i>Min</i> 0.08
Turkey	<i>max</i>	0.64	Jordan	<i>max</i> 0.46
<i>Average</i>		0.39	<i>Average</i>	0.20
<b>China, Rep.</b>			<b>EU</b>	
Malaysia	<i>min</i>	0.11	Senegal	<i>Min</i> 0.11
Turkey	<i>max</i>	0.53	Palestine	<i>max</i> 0.60
<i>Average</i>		0.26	<i>Average</i>	0.31
<b>Iran, Rep.</b>			<b>Egypt</b>	
Pakistan	<i>min</i>	0.10	Indonesia	<i>Min</i> 0.09
Lebanon	<i>max</i>	0.64	Lebanon	<i>max</i> 0.54
<i>Average</i>		0.37	<i>Average</i>	0.25
<b>India</b>				
Bangladesh	<i>min</i>	0.06		
Pakistan	<i>max</i>	0.80		
<i>Average</i>		0.36		

Table 3.4. Lowest, Highest and Average Unfavorable Opinion over Pairs of Countries

Sample percentage of unfavorable opinion towards regional leading countries. The least unfavorable, the most unfavorable and average per source country.					
Bangladesh/India	<i>low</i>	0.06		Mali/China	<i>low</i> 0.07
Bangladesh/US	<i>high</i>	0.41		Mali/Iran	<i>high</i> 0.42
Average		0.22		Average	0.21
Egypt /Saudi Arabia	<i>low</i>	0.08		Morocco /Saudi Arabia	<i>low</i> 0.15
Egypt/US	<i>high</i>	0.78		Morocco /US	<i>high</i> 0.56
Average		0.43		Average	0.26
Ethiopia/Japan	<i>low</i>	0.08		Nigeria/Japan	<i>low</i> 0.16
Ethiopia/Iran	<i>high</i>	0.59		Nigeria/Iran	<i>high</i> 0.47
Average		0.26		Average	0.26
Indonesia/Saudi Arabia	<i>low</i>	0.08		Pakistan/Saudi Arabia	<i>low</i> 0.02
Indonesia/US	<i>high</i>	0.66		Pakistan/US	<i>high</i> 0.68
Average		0.25		Average	0.24
Jordan/Saudi Arabia	<i>low</i>	0.10		Senegal/Japan	<i>low</i> 0.09
Jordan/US	<i>high</i>	0.78		Senegal/Iran	<i>high</i> 0.43
Average		0.46		Average	0.23
Kuwait/Japan	<i>low</i>	0.14		Tanzania/Japan	<i>low</i> 0.08
Kuwait/US	<i>high</i>	0.46		Tanzania/Iran	<i>high</i> 0.56
Average		0.27		Average	0.25
Lebanon/Saudi Arabia	<i>low</i>	0.17		Turkey/Egypt	<i>low</i> 0.37
Lebanon/Iran	<i>high</i>	0.64		Turkey/US	<i>high</i> 0.83
Average		0.43		Average	0.52
Malaysia/Japan	<i>low</i>	0.10		Palestine/Saudi Arabia	<i>low</i> 0.33
Malaysia/US	<i>high</i>	0.69		Palestine/US	<i>high</i> 0.86
Average		0.25		Average	0.5

Table 3.5. Negative Binomial Model of Public Opinion and Terrorist Incidents between Pairs of Countries (Clustered by Countries X)

VARIABLES	(1) Attacks	(2) Attacks	(3) Attacks	(4) Attacks	(5) Attacks	(6) Attacks	(7) Attacks	(8) Attacks
Justification	6.136*** (1.188)		5.355*** (1.176)	1.425 (2.623)	0.125 (2.571)	1.317 (2.639)	2.531 (2.496)	2.004 (2.451)
Opinion		3.146** (1.279)	1.797** (0.905)	0.0681 (0.967)	-0.294 (1.007)	-0.134 (1.067)	-0.878 (1.074)	-0.0894 (0.666)
Justification*Opinion				7.873* (4.080)	10.40** (4.326)	8.117** (4.107)	8.481** (3.965)	7.241** (3.116)
Distance X to Y	-3.142*** (1.030)	-4.341*** (1.115)	-3.386*** (1.078)	-3.638*** (1.061)	-3.570*** (1.077)	-3.832*** (1.173)	-3.145*** (0.940)	-2.887*** (0.927)
Population X	3.050*** (0.419)	2.040*** (0.454)	3.040*** (0.427)	3.316*** (0.617)	3.238*** (0.607)	3.334*** (0.608)	3.466*** (0.587)	3.363*** (0.693)
Population Y	1.025*** (0.286)	0.924** (0.386)	0.867*** (0.328)	0.875*** (0.338)	0.890** (0.366)	0.978** (0.425)	0.905*** (0.302)	1.074*** (0.244)
Civil Liberties X	0.349** (0.167)	0.152 (0.281)	0.256 (0.219)	0.196 (0.267)	0.324 (0.264)	0.190 (0.270)	0.149 (0.306)	0.293 (0.278)
GDP per capita X	3.531 (5.520)	13.13*** (4.784)	2.908 (5.164)	2.851 (5.078)	4.739 (5.019)	3.007 (5.083)	6.375 (6.442)	1.865 (5.286)
GDP per capita X2	-0.399 (0.848)	-2.159*** (0.722)	-0.370 (0.787)	-0.330 (0.757)	-0.563 (0.735)	-0.349 (0.760)	-0.958 (1.040)	-0.140 (0.804)
Portion Muslim	0.996 (1.626)	-2.294 (1.466)	0.320 (1.685)	-0.578 (1.923)	0.917 (2.430)	-0.555 (1.909)	0.114 (1.957)	-0.00523 (1.921)
Civil Liberties Y	-0.603*** (0.143)	-0.492*** (0.141)	-0.494*** (0.153)	-0.530*** (0.158)	-0.490*** (0.169)	-0.519*** (0.156)	-0.549*** (0.165)	-0.0266 (0.230)
GDP per capita Y	-0.0950 (0.312)	0.349 (0.406)	0.156 (0.363)	0.119 (0.380)	0.257 (0.478)	0.169 (0.402)	0.0755 (0.375)	0.488 (0.372)
Middle East					-1.387 (1.317)			
Asia					-1.262 (1.159)			
Big Neighbors						-0.230 (0.400)		
Former Colonies							-0.983 (0.771)	
US								1.513** (0.731)
EU								2.335*** (0.800)
Constant	-28.87*** (8.277)	-26.71*** (10.21)	-25.89*** (7.853)	-25.36*** (9.604)	-29.78*** (9.850)	-26.00*** (9.455)	-32.85*** (11.64)	-33.74*** (9.363)
N	120	120	120	120	120	120	120	120

Notes: Standard errors in parentheses \*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

Table 3.6. Negative Binomial Model of Public Opinion and Terrorist Attacks between Pairs of Countries (Clustered by Countries X)

	(1) Justification & Opinion	(2) Justification & Opinion & JO	(3) Model (2) & Regions	(4) Model (2) & Big Neighbors	(5) Model (2) & ExColonies	(6) Model (2) & Targets US, EU
VARIABLES	Attacks	Attacks	Attacks	Attacks	Attacks	Attacks
Justification	5.355*** (1.176)	1.425 (2.623)	0.530 (2.948)	1.317 (2.639)	2.531 (2.496)	2.004 (2.451)
Opinion	1.797** (0.905)	0.0681 (0.967)	0.197 (0.990)	-0.134 (1.067)	-0.878 (1.074)	-0.0894 (0.666)
JO		7.873* (4.080)	8.829* (4.679)	8.117** (4.107)	8.481** (3.965)	7.241** (3.116)
Distance X to Y	-3.386*** (1.078)	-3.638*** (1.061)	-3.755*** (0.993)	-3.832*** (1.173)	-3.145*** (0.940)	-2.887*** (0.927)
Population X	3.040*** (0.427)	3.316*** (0.617)	3.220*** (0.628)	3.334*** (0.608)	3.466*** (0.587)	3.363*** (0.693)
Civil Liberties X	0.256 (0.219)	0.196 (0.267)		0.190 (0.270)	0.149 (0.306)	0.293 (0.278)
GDP per capita X	2.908 (5.164)	2.851 (5.078)		3.007 (5.083)	6.375 (6.442)	1.865 (5.286)
GDP per capita X2	-0.370 (0.787)	-0.330 (0.757)		-0.349 (0.760)	-0.958 (1.040)	-0.140 (0.804)
Portion Muslim	0.320 (1.685)	-0.578 (1.923)		-0.555 (1.909)	0.114 (1.957)	-0.00523 (1.921)
Population Y	0.867*** (0.328)	0.875*** (0.338)	0.872** (0.347)	0.978** (0.425)	0.905*** (0.302)	1.074*** (0.244)
Civil Liberties Y	-0.494*** (0.153)	-0.530*** (0.158)	-0.509*** (0.160)	-0.519*** (0.156)	-0.549*** (0.165)	-0.0266 (0.230)
GDP per capita Y	0.156 (0.363)	0.119 (0.380)	0.195 (0.432)	0.169 (0.402)	0.0755 (0.375)	0.488 (0.372)
Middle East			0.121 (0.622)			
Asia			-0.294 (0.709)			
Big Neighbors				-0.230 (0.400)		
Ex Colonies					-0.983 (0.771)	
US						1.513** (0.731)
EU						2.335*** 2.004
Constant	-25.89** (10.44)	-25.36** (10.66)	-18.53*** (6.029)	-26.00** (10.77)	-32.85** (12.80)	-33.74*** (10.19)
N	120	120	120	120	120	120
Pseudo R-square	0.230	0.241	0.237	0.241	0.249	0.268

Notes: Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.7. Estimation Comparison

VARIABLES	NB	NB, robust s.e	NB, Weighted by number of responses in the source country	NB, SVY
Justification	0.859 (2.518)	0.859 (2.306)	1.189 (2.087)	1.189 (2.092)
Opinion	0.247 (1.294)	0.247 (0.994)	0.780 (1.108)	0.780 (1.109)
Justify & Unf. Opinion	9.094** (4.098)	9.094** (4.152)	6.621* (3.658)	6.621* (3.660)
Distance X-Y	-3.423*** (0.958)	-3.423*** (0.917)	-3.901*** (0.879)	-3.901*** (0.880)
Population X	3.303*** (0.612)	3.303*** (0.687)	2.981*** (0.578)	2.981*** (0.579)
Civil Liberties X	0.194 (0.266)	0.194 (0.248)	0.180 (0.197)	0.180 (0.198)
GDP per capita X	2.885 (6.865)	2.885 (5.775)	1.788 (5.352)	1.788 (5.360)
GDP per capita X2	-0.378 (1.113)	-0.378 (0.910)	-0.260 (0.850)	-0.260 (0.851)
Portion Muslim	0.0361 (1.553)	0.0361 (1.576)	-0.549 (1.455)	-0.549 (1.457)
Population Y	0.726 (0.445)	0.726* (0.394)	0.579 (0.410)	0.579 (0.409)
Civil Liberties Y	-0.441*** (0.149)	-0.441*** (0.140)	-0.511*** (0.132)	-0.511*** (0.132)
GDP per capita Y	0.225 (0.358)	0.225 (0.344)	-0.0604 (0.318)	-0.0604 (0.318)
Constant	-25.86** (10.89)	-25.86** (10.48)	-16.14* (8.304)	-16.14* (8.323)
Pseudo R_square	0.25	0.25		
N	120	120	120	120

Notes: Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.8. Negative Binomial Estimation of Shares of Populatio by Public Opinion and Number of Attacks

VARIABLES	NB	NB, robust st.e	NB, Weighted	NB, SVY
	Attacks	Attacks	Attacks	Attacks
Justify&Unf.Opinion	10.25*** (2.242)	10.25*** (2.180)	8.665*** (1.957)	8.665*** (1.899)
Justify& Fav.Op.	1.696 (2.952)	1.696 (2.834)	1.383 (2.611)	1.383 (2.561)
NoJus.&Unf.Opinion	1.018 (1.438)	1.018 (1.279)	0.972 (1.261)	0.972 (1.274)
Distance X-Y	-3.462*** (0.978)	-3.462*** (0.960)	-3.921*** (0.881)	-3.921*** (0.951)
Population X	3.285*** (0.612)	3.285*** (0.661)	2.959*** (0.569)	2.959*** (0.578)
Civil Liberties X	0.175 (0.265)	0.175 (0.241)	0.173 (0.193)	0.173 (0.193)
GDP per capita X	3.125 (6.914)	3.125 (5.794)	2.080 (5.347)	2.080 (5.170)
GDP per capita X2	-0.438 (1.125)	-0.438 (0.916)	-0.317 (0.849)	-0.317 (0.826)
Portion Muslim	0.674 (0.448)	0.674 (0.425)	0.558 (0.424)	0.558 (0.435)
Population Y	0.146 (1.565)	0.146 (1.640)	-0.433 (1.432)	-0.433 (1.449)
Civil Liberties Y	-0.414*** (0.151)	-0.414*** (0.147)	-0.500*** (0.138)	-0.500*** (0.143)
GDP per capita Y	0.276 (0.358)	0.276 (0.360)	-0.0581 (0.328)	-0.0581 (0.332)
Constant	-25.90** (10.85)	-25.90*** (9.991)	-16.23** (8.122)	-16.23** (7.966)
Pseudo R_square	0.25	0.25		
N	120	120	120	120



## Appendix 3.B

Pair wise t-test of Justification by Gender (Female - Male)		
Country	t-stat	p-value
Mali	0.064	0.949
<b>Senegal</b>	<b>1.869</b>	<b>0.062</b>
<b>Nigeria</b>	<b>3.123</b>	<b>0.002</b>
Bangladesh	0.463	0.643
Malaysia	1.336	0.182
Tanzania	0.204	0.838
Ethiopia	0.589	0.556
Kuwait	1.018	0.309
<b>Turkey</b>	<b>2.734</b>	<b>0.006</b>
Palestine	1.332	0.183
Jordan	0.808	0.419
Lebanon	1.016	0.31
<b>Indonesia</b>	<b>2.145</b>	<b>0.032</b>
Egypt	1.066	0.287
<b>Morocco</b>	<b>6.868</b>	<b>0</b>
<b>Pakistan</b>	<b>3.869</b>	<b>0</b>

Pair-wise T-test on Justification by Age (Over 40 - 40&Under)		
Country	t-stat	p-value
<b>Mali</b>	<b>-2.367</b>	<b>0.018</b>
Senegal	-0.714	0.475
Nigeria	0.581	0.561
<b>Bangladesh</b>	<b>2.112</b>	<b>0.035</b>
Malaysia	0.222	0.824
Tanzania	1.035	0.302
Ethiopia	1.324	0.187
Kuwait	-1.345	0.179
Turkey	-1.124	0.261
Palestine	-0.709	0.479
<b>Jordan</b>	<b>2.024</b>	<b>0.043</b>
Lebanon	0.401	0.688
Indonesia	0.821	0.412
Egypt	0.642	0.521
Morocco	0.067	0.947
Pakistan	-0.166	0.868

Pair-wise t-test on Male Population and Justification by Age (Men Over 40 - Men 40&Under)		
Country	t-stat	p - value
<b>Mali</b>	<b>1.674</b>	<b>0.095</b>
Senegal	1.273	0.204
Nigeria	0.579	0.563
Bangladesh	0.789	0.43
Malaysia	0.246	0.806
Tanzania	1.551	0.123
Ethiopia	1.542	0.126
Kuwait	0.959	0.339
Turkey	0.544	0.587
Palestine	0.246	0.806
Jordan	0.856	0.392
Lebanon	0.289	0.773
Indonesia	0.709	0.479
Egypt	0.325	0.745
Morocco	0.195	0.845
Pakistan	0.993	0.321